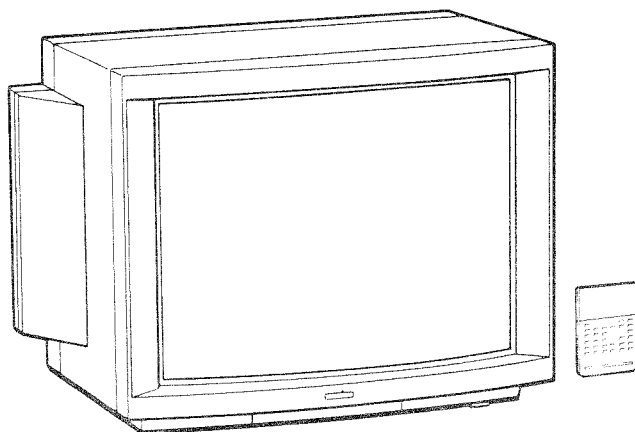


# KV-27SXR10

## RM-755

7393

## SERVICE MANUAL



**US Model**  
Chassis No. SCC-5951-A  
**Canadian Model**  
Chassis No. SCC-607H-A

# P-2B CHASSIS

**Note:** The service manual for RM-755 has been issued separately.

### MODELS OF THE SAME SERIES

KV-27SXR10	
KV-32SXR10	

### SPECIFICATIONS

Television system American TV standard  
Channel coverage VHF: 2-13  
UHF: 14-69  
Cable TV: 1-125  
Picture tube Microblack Trinitron tube  
**27-inch picture measured diagonally**  
28-inch picture tube measured diagonally  
Input VIDEO INPUT 1, 2 and 3 (phono jacks)  
Video: 1 Vp-p, 75-ohms unbalanced, sync negative  
Audio: 500 mVrms (100% modulation)  
Impedance: 47 kilohms  
S VIDEO INPUT (4-pin mini DIN)  
Y: 1 Vp-p, 75-ohms unbalanced, sync negative  
C: 0.286 Vp-p (Burst signal) 75-ohms

Output MONITOR OUTPUT (phono jacks)  
Video: 1 Vp-p, 75-ohms unbalanced, sync negative  
Audio: 500 mVrms (100% modulation)  
Impedance: 10 kilohms  
AUDIO OUTPUT (VARIABLE) (phono jacks)  
More than 408 mVrms at the maximum volume setting (variable) (100% modulation)  
Impedance: 10 kilohms  
Power requirements 120 V AC, 60 Hz  
Power consumption 170W (max.)  
Accessories supplied Remote Commander RM-755 with 2 size AA batteries  
Antenna connector  
Optional accessories U/V mixer EAC-66  
Connecting cord VMC-810S/820S RK-74A

Design and specifications subject to change without notice.



# TRINITRON® COLOR TV

# SONY®


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## WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.


## SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

## ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

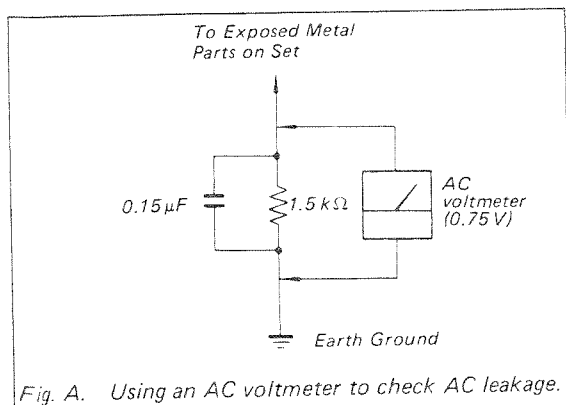
## ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÉCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIÉS DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

## SAFETY CHECK-OUT (US MODEL ONLY)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any).  
Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.



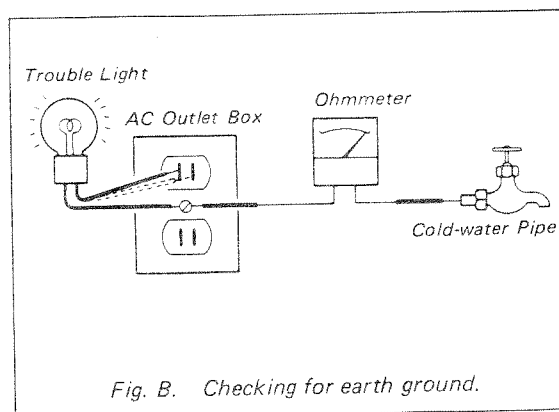
### LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

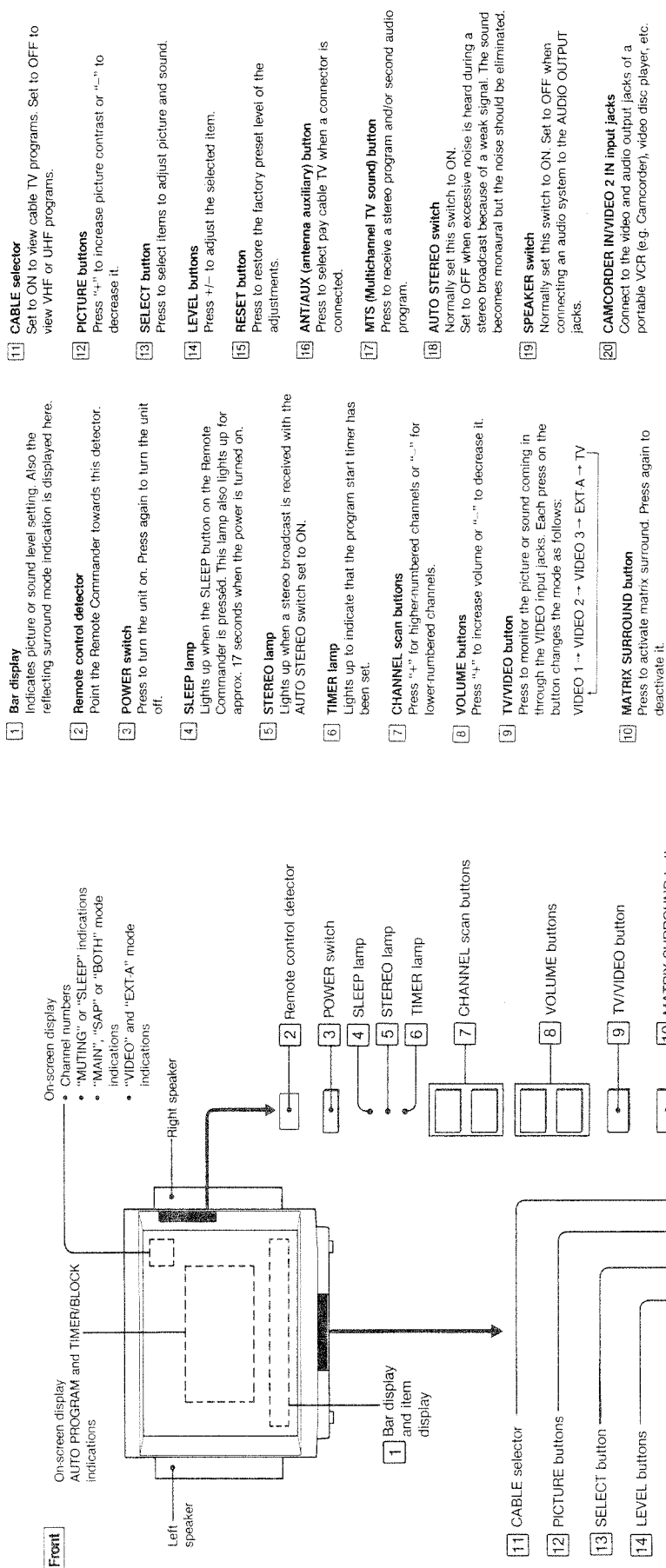
### HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)



# SECTION 1 GENERAL

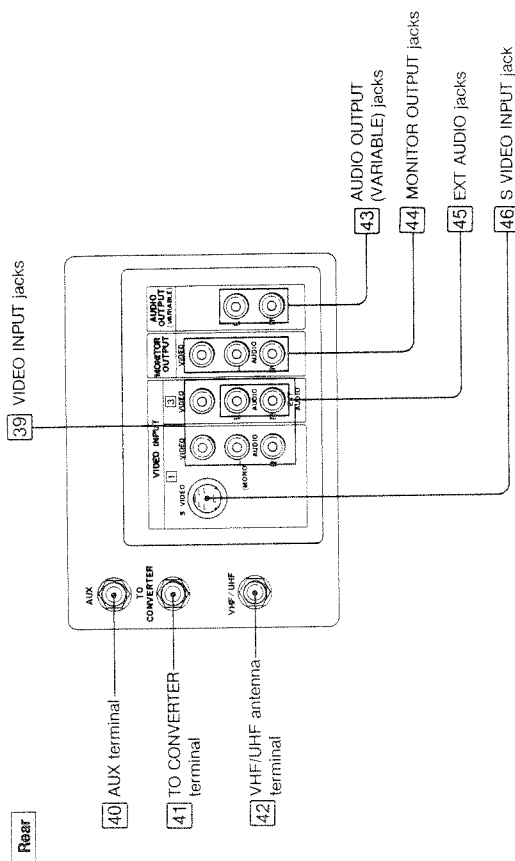
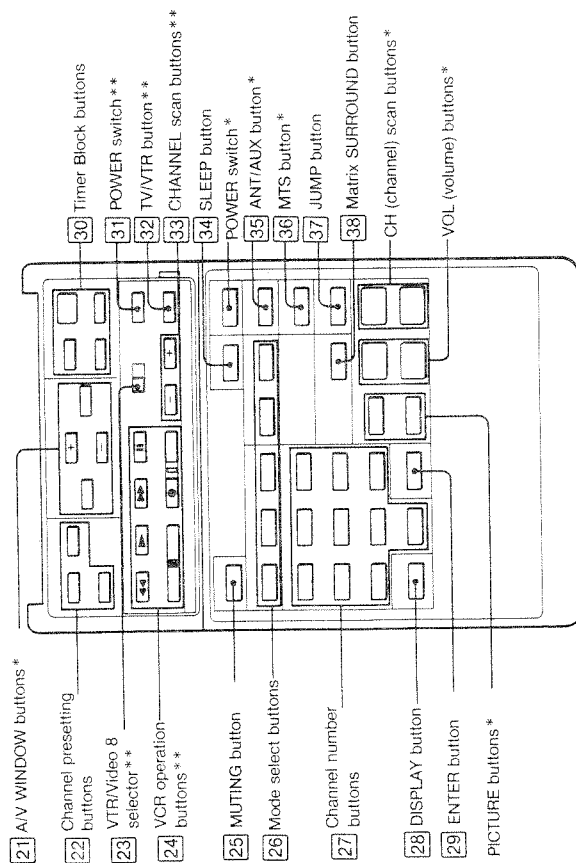
## 1-1. LOCATION AND FUNCTION OF CONTROLS





# Remote Commander RIM-755

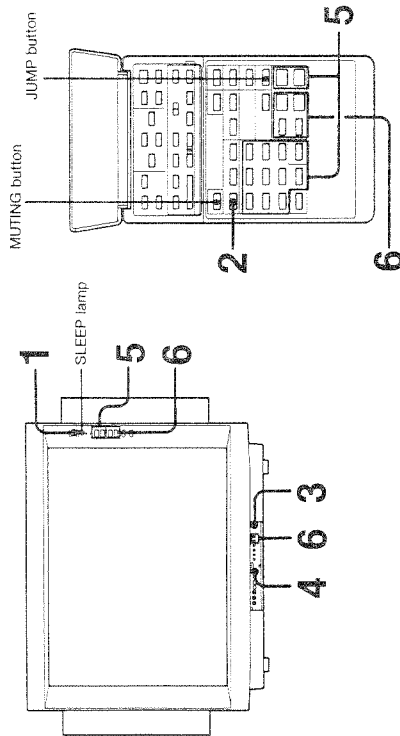
\* The functions of these buttons are available on the TV.  
 \*\* These buttons are used for VCR operation.  
 Only Sony Betamax or 8mm format infrared remote control VCRs can be operated with these buttons.



- 39 VIDEO INPUT (1, 3) jacks (phono)**  
Connect to the video and audio output jacks of a VCR, video disc player, etc.
- 40 AUX terminal**  
Connect the output of a special converter for pay cable TV reception.
- 41 TO CONVERTER terminal**  
Connect the input of a special converter for pay cable TV reception.
- 42 VHF/UHF antenna terminal**  
Connect an external antenna or a CATV cable.
- 43 AUDIO OUTPUT (VARIABLE) jacks (phono)**  
Connect an amplifier to monitor the sound through a stereo system.
- 44 MONITOR OUTPUT jacks (phono)**  
Connect to the video and audio input jacks of a VCR or color monitor. Either the TV or VCR signal selected by the TV/VIDEO button is supplied.
- 45 EXT (external) AUDIO jacks (phono)**  
An external audio source can be connected to these jacks to be combined with the picture displayed on the TV. Connect to the audio/line output of the audio source.
- 46 S VIDEO INPUT jack (4-pin mini DIN)**  
Connect to the S video output jack of a VCR.

## 1-2. OPERATION

### Seeing TV program



- 1 Press POWER to turn on the TV.
- 2 If the "VIDEO 1", "VIDEO 2", "VIDEO 3", or "EXT-A" indication is displayed on the screen, press the TV button on the Remote Commander so that a channel number is displayed.
- 3 Set the CABLE selector  
For VHF and UHF channels : OFF  
For cable TV programs : ON
- 4 Press the ANT/AUX button as necessary.  
For VHF UHF and regular cable TV channels: the "AUX" indication should be off.  
For pay cable TV channels: the indication should be displayed.
- 5 Select channels in one of the following two ways.
  - Press the numeral(s) of the channel, then press ENTER.
  - Example: To select channel 6, press 6 and ENTER.  
To select channel 125, press 1, 2, 5 and ENTER.
  - If you pressed a wrong numeral, wait for a few seconds until it disappears. Then, try again.
  - Press CH or CHANNEL "+" for higher-numbered channels and "-" for lower-numbered channels.
- 6 Press VOL or VOLUME "+" or "-" to adjust the volume and PICTURE "+" or "-" to adjust the picture.

#### To switch quickly between 2 channels, press JUMP.

Each time JUMP is pressed, the channel which appeared on the screen directly before is recalled. This button enables you to keep track of two programs alternately.

#### To mute the sound, press MUTE.

The "MUTING" indication will appear on the screen. To restore the sound, press MUTE again or VOL +/-.

#### To turn off the unit, press POWER again.

#### To have the TV turn off automatically after 1 hour, press SLEEP.

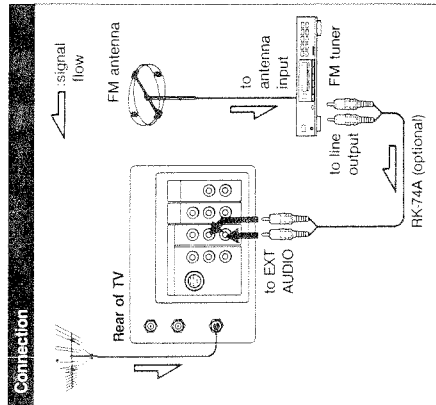
The "SLEEP" indication will appear on the screen for a few seconds and the SLEEP lamp on the TV will remain lit until the TV is turned off. To cancel the SLEEP timer, press SLEEP again so that the SLEEP lamp goes out, or turn off the TV.

### Enjoying FM Simulcasted Programs

#### Over-the-air FM simulcasts

Sometimes a TV station and an FM radio station will broadcast a program simultaneously so that viewers can enjoy TV programs in high-fidelity stereo. The video portion of the program is viewed normally by selecting the correct channel and the audio portion is heard in stereo by tuning to the correct FM station of the user's FM tuner.

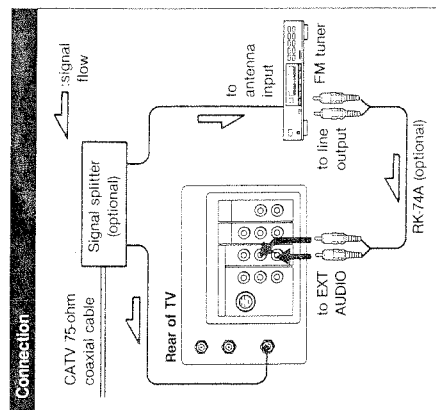
This TV featuring double-sided speakers has been equipped with External audio (L/R) jacks to allow the user to connect an FM tuner so that stereo simulcasts can be enjoyed on the TV's stereo speakers. Set-up is shown below.



#### Connection

#### Over-the-cable FM simulcasts

Cable TV companies have also started "simulcasting" some channels like MTV (Music Television) and selected movies in stereo over the cable. In the case of cable stereo programs, however, the audio signal is not sent over the air but sent on FM frequencies over the cable. By splitting the incoming cable signal and running it to both the TV tuner and an FM tuner/receiver, these cable programs can be enjoyed in stereo over the TV's double-sided speakers as shown below.



#### Connection

### Operation

#### Preparation

Make sure the following are properly set.

- Press TV/VIDEO button as many times as necessary so that the on-screen "EXT-A" indication is displayed.
- For over-the-air FM simulcasts, the CABLE selector should be OFF.
- For over-the-cable FM simulcasts, the CABLE selector should be ON, and depending on the channel to be viewed, the on-screen "AUX" indication should be as follows:  
(Press ANT/AUX button to change as necessary.)  
For regular cable TV channels:  
The indication should be off.  
For pay cable TV channels:  
The indication should be displayed.

- 1 Set the FM tuner to the frequency designated by the broadcaster.
- 2 Operate the TV the same as in usual TV viewing.

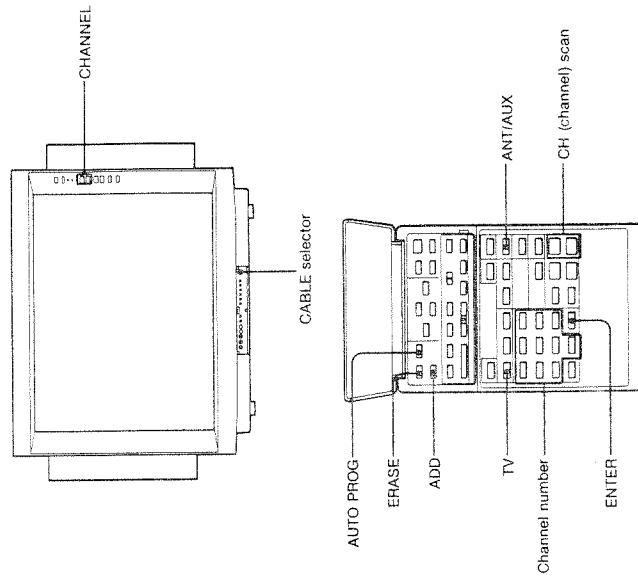
### 1-3. PRESETTING CHANNELS

Use the supplied Remote Commander.

Both automatic and manual programming are available. Automatic programming presets all the receivable channels automatically. With manual programming, you can preset only the desired channels. When the presetting has been completed, only the preset channels appear, in numerical sequence, when CH (CHANNEL) +/- are pressed.

Receivable channels of this unit are:

VHF: 2-13  
UHF: 14-69  
Cable: 1-125



#### Enjoying Matrix Surround Effect

To enjoy sound reproduction with the atmosphere of a movie theater or a concert hall, press the MATRIX SURROUND button when the stereo sound is received. Press the button again to deactivate Matrix surround.

Matrix surround	On-screen indication
Turned ON	Matrix Surround
Turned OFF	Matrix Surround

#### Note

The surround function operates only for stereo sound.

#### Additional Picture and Sound Adjustment

- 1 Press SELECT consecutively until the on-screen display of the item you desire to adjust appears. The display will change as follows:

HUE → COLOR → BRIGHT → SHARPNESS  
BALANCE ← BASS ← TREBLE

The display will disappear after a few seconds but will appear again when the next step is taken.

- 2 Press LEVEL + (R)/- (L) to adjust the selected item.

Selected Item	-(L) Left button	+(R) Right button
HUE	Skin tones become purplish	Skin tones become greenish
COLOR	For less color intensity	For more color intensity
BRIGHT	For less brightness	For more brightness
SHARPNESS	For less sharpness	For more sharpness
TREBLE	To decrease treble response	To increase treble response
BASS	To decrease bass response	To increase bass response
BALANCE	To emphasize the left speaker's volume	To emphasize the right speaker's volume

#### On-screen color-bar displays

When any of the above adjustments are made, a colored segmented bar appears on the screen to indicate the appropriate setting level.

To clear the adjustment levels and restore the factory preset levels at once, press RESET. (A "RESET" indicator will appear for a few second.)

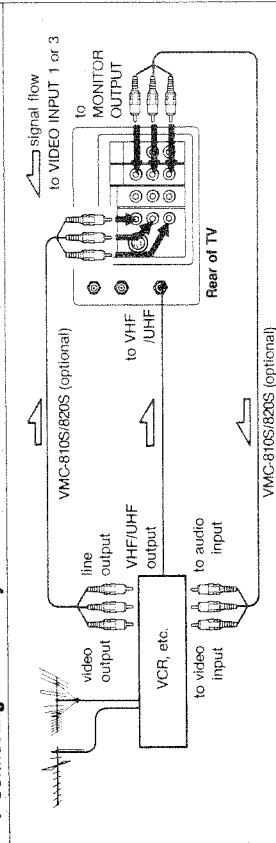
## 1-4. APPLICATIONS WITH OPTIONAL EQUIPMENT

### VCR Connection

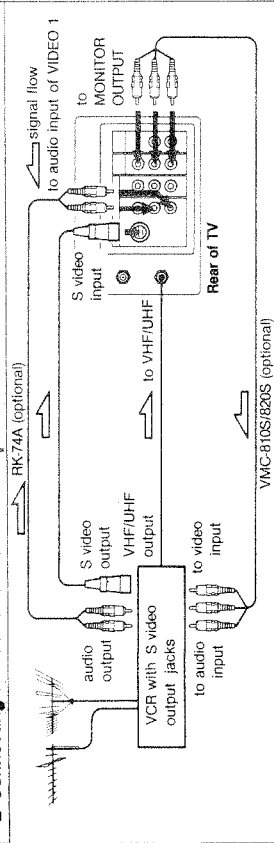
With the following connection, you will be able to...

- View the playback of the video tapes
- Record TV programs
- Record a TV program while viewing another

#### 1 Connecting the Ordinary VCRs



#### 2 Connecting the VCRs with S Video Output Jack



A portable VCR, video camera recorder can be easily connected to the CAMCORDER IN/VIDEO 2 on the front panel.

#### About S video input

Video input and output signals may be separated into Y (luminance or brightness) and C (chroma or color) signals. Usually these two signals are combined in a VCR and sent as one signal to a TV. Separation of the Y and C signals prevents them from interfering with one another, thereby improving picture (especially in color) quality. This unit is equipped with an S video input jack through which these separated signals can be input directly.

#### Notes on connection

- Up to three VCRs or other equipment can be connected to VIDEO INPUT 1, 3 jacks and CAMCORDER IN/VIDEO 2 jacks.
- When connecting a VCR and other equipment to the TV, connect the VCR to VIDEO INPUT 1 and other equipment to VIDEO INPUT 3.
- When connecting a VCR to VIDEO 1, connect it to L jack. The monaural sound is heard from both speakers.

#### When connecting to S VIDEO INPUT

- Connect to audio input jacks of VIDEO 1.
- The picture from the video input jack of VIDEO 1 (phone jack) is not displayed.
- Select the VIDEO 1 mode to see the picture from S video.



- 1 Turn on the TV.
  - 2 Press the VIDEO/button or a mode select button so that the "VIDEO 1", "VIDEO 2", or "VIDEO 3" indication appears on the screen.
- VIDEO 1: for equipment connected to VIDEO INPUT 1 and S VIDEO INPUT
- VIDEO 2: for equipment connected to VIDEO INPUT 2
- VIDEO 3: for equipment connected to VIDEO INPUT 3

#### Operation

For operation, refer to the instruction manual furnished with the VCR.

When using a Sony infrared remote control VCR, the VCR can be operated with the supplied Remote Commander.

- 1 Set the VTR/VIDEO 8 selector.
- Sony Betamax VCR: VTR
- Sony 8mm VCR: Video 8
- 2 Press the VCR operation button on the Commander.

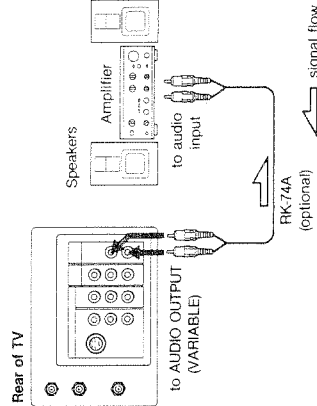
#### To return to the TV mode

- Press the TV/VIDEO button on the TV until a channel number appears on the screen.
- Press the TV button on the Remote Commander.

#### When you cannot obtain a clear picture and/or sound

Make sure that the TV/VTR (program select) button on the VCR is set to TV. Re-select the desired channel with the buttons on the TV or TV Remote Commander.

### To Monitor the TV or Connected VCR Sound through an Audio System



#### Sound level adjustment

Keep the amplifier volume, bass and treble controls to certain positions (usually at the medium position) and adjust the level with the VOLUME buttons on the TV or the VOL buttons on the Commander, BASS and TREBLE controls to match the sound level of other audio equipment or to your preference.

#### Caution

Television programs, films, video tapes and other materials may be copyrighted. Unauthorized recording of such material may be contrary to the provisions of the copyright laws.





Keep the VCR away from the TV. If the picture or sound is affected, When no signal is fed through the VIDEO INPUT jacks even through the TV is in the video mode, "VIDEO" indication will appear on the screen.



When an audio system is connected to AUDIO OUTPUT, be sure to set the SPEAKER switch to OFF. The sound from the TV's speakers will be cut off.

## 1-5. TROUBLESHOOTING

Disturbances in picture and sound can often be eliminated by checking the symptoms and following the suggestions listed below.

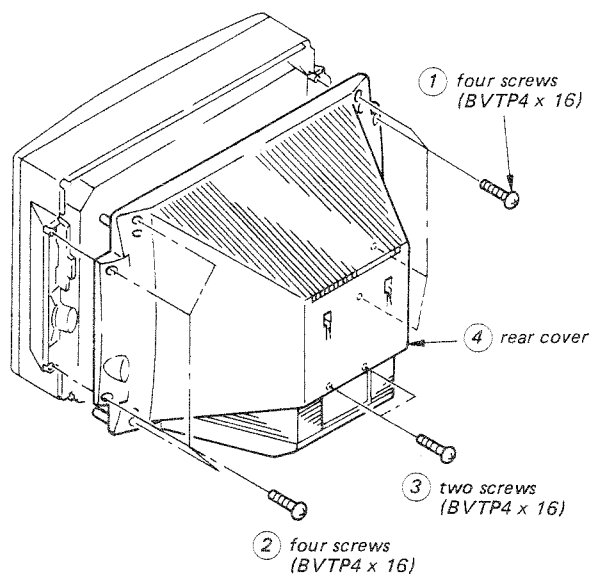
GENERAL		SYMPTOM	CHECK AND ADJUST
		Poor or no picture (screen not lit), good sound	<ul style="list-style-type: none"> <li>• Adjust PICTURE.</li> <li>• Adjust BRIGHT.</li> <li>• Check antenna/cable connections.</li> </ul>
		Good picture, no sound	<ul style="list-style-type: none"> <li>• Press VOLUME +.</li> <li>• Release MUTING on the Remote Commander.</li> <li>• Check that the MTS button is set correctly.</li> <li>• Check that the TV/VIDEO button or mode select button is set correctly.</li> <li>• Set the SPEAKER switch to ON.</li> </ul>
		No picture (screen not lit), no sound	<ul style="list-style-type: none"> <li>• Is POWER switched on?</li> <li>• Power in outlet?</li> <li>• Check that the TV/VIDEO button is set correctly.</li> </ul>
		No color	<ul style="list-style-type: none"> <li>• Is it a color program?</li> <li>• Adjust COLOR.</li> </ul>
		Snow and noise only	<ul style="list-style-type: none"> <li>• Is it an active or the correct channel?</li> <li>• Check the CABLE selector setting.</li> <li>• Check antenna/cable connections.</li> <li>• Check that the ANT/AUX button is set correctly.</li> </ul>
		 Dotted lines or stripes	This is often caused by local interference. (e.g. cars, neon signs, hairdryers etc.) Adjust antenna for minimum interference.
		 Double images or ghosts	Reflections from nearby mountains or buildings often cause this problem. A highly directional outdoor antenna or a CATV cable may improve the picture.
		Try another channel. It could be station trouble.	

TIMER/BLOCK	SYMPTOM	CHECK AND ADJUST
	Program start TIMER and/or channel BLOCK does not operate properly.	<ul style="list-style-type: none"> <li>• Is the clock set correctly?</li> <li>• Is the setting correct?</li> <li>• Have you unplugged the unit?</li> </ul> Has a power failure occurred? If so, the settings have been erased.

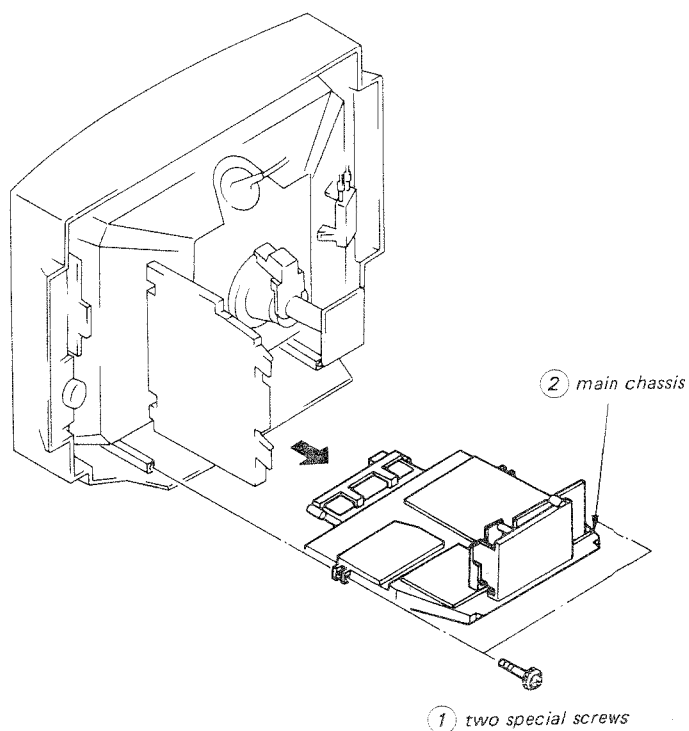
If the problem persists, contact your nearest service facility.

## SECTION 2 DISASSEMBLY

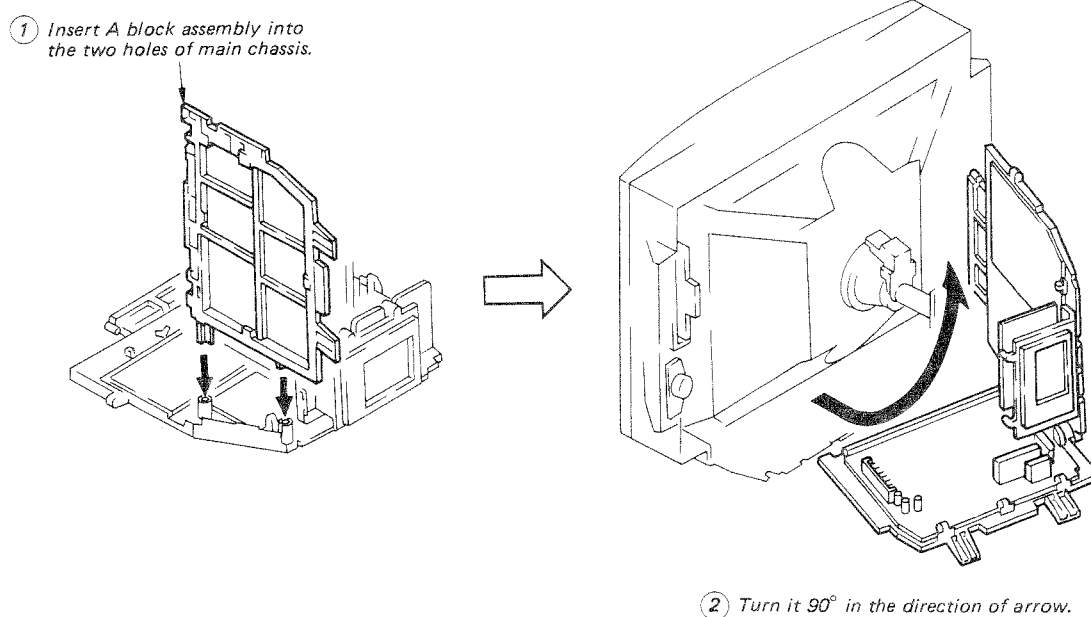
### 2-1. REAR COVER REMOVAL



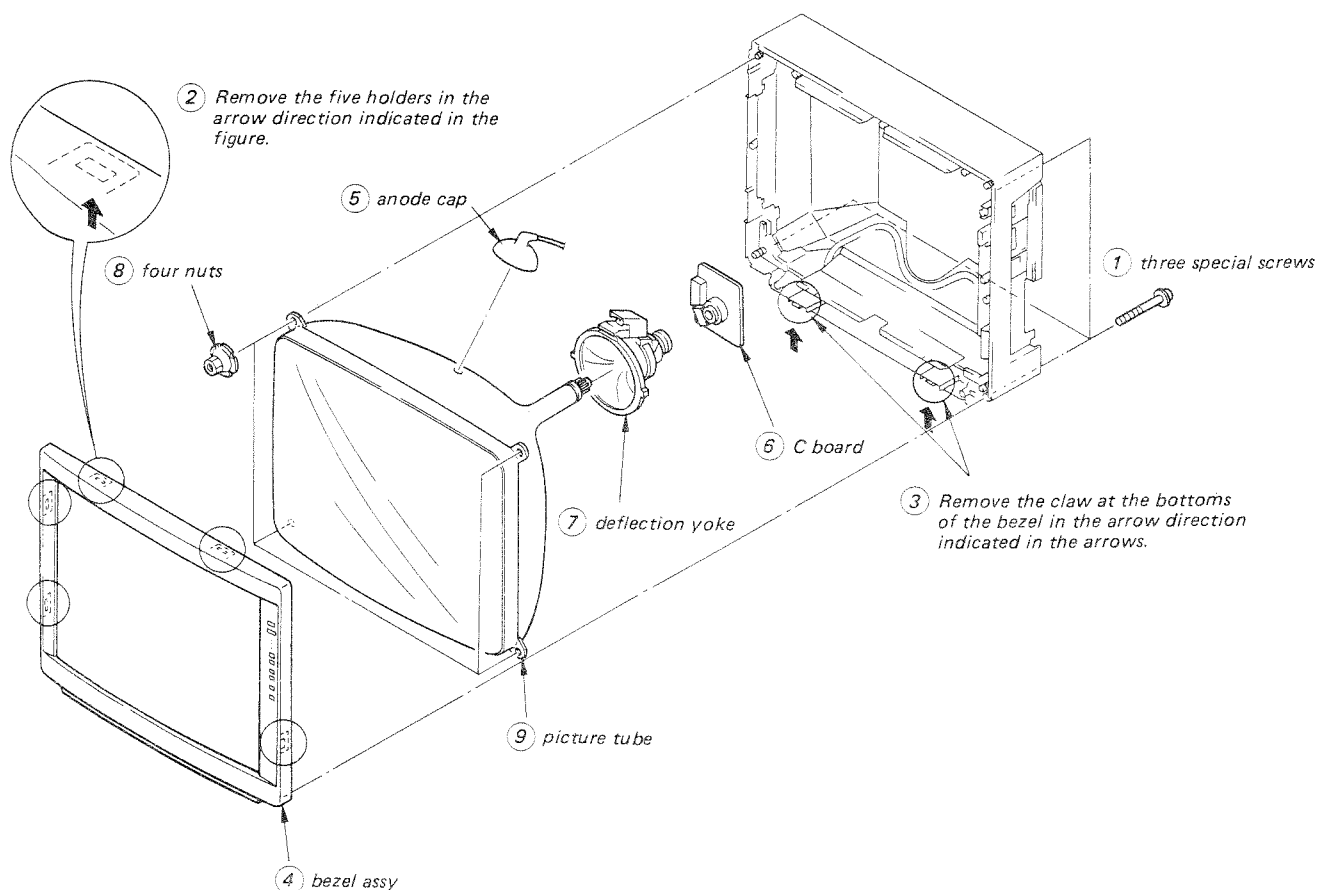
### 2-2. MAIN CHASSIS REMOVAL



### 2-3. SERVICE POSITION

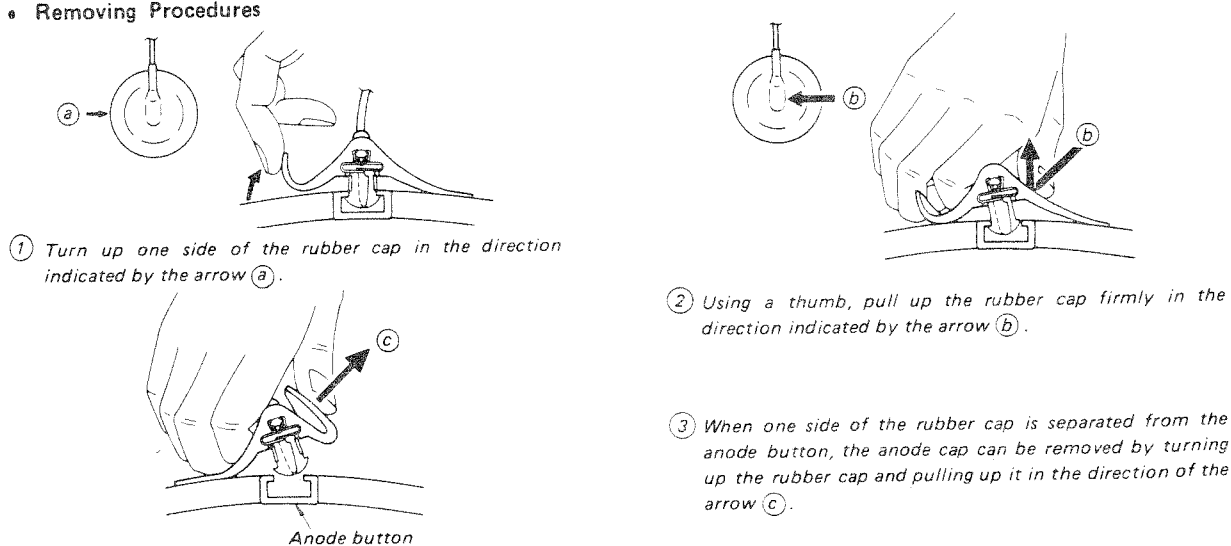


## 2.4. PICTURE TUBE REMOVAL



### REMOVAL OF ANODE CAP

#### • Removing Procedures



## SECTION 3

### SET-UP ADJUSTMENTS

- The following adjustment should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switch should be set as follows unless otherwise noted :

PICTURE button ..... 80%  
BRIGHTNESS ..... 50%

Perform the adjustments in order as follows :

1. Beam Landing
2. Convergence
3. Focus Adjustment
4. White Balance

**Note :** Test Equipment Required.

1. Color-bar/Pattern Generator
2. Degausser
3. Oscilloscope

#### 3-1. BEAM LANDING

**Preparation :**

- Feed in the white pattern.
  - Before starting, degauss the entire screen.
1. Turn on set power supply and receive an all-white signal.
  2. Evenly degauss the entire screen.
  3. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown in Figure 3-1.
  4. Set BKG VR (R) to maximum and set (B) and (C) to minimum.
  5. Move the deflection yoke back, and adjust the purity control so that (R) is in the center and (C) and (B) are at the sides, evenly. (Figure 3-2.)
  6. Move the deflection yoke forward so that the entire screen is red.
    - \*If the deflection yoke is pushed all the way to the CRT then moved slightly back, landing adjustment is easier.
  7. Substitute (C), then (B) for (R) in step 4 and check landing.
  8. Rotate (R), (C) and (B) once each and check landing.
  9. When landing is not right, adjust the purity control and use magnets as shown in figure 3-3, then repeat steps 7 and 8.
  10. When a magnet is used, be sure to perform step 2, and tighten deflection yoke mounting screw loosely.

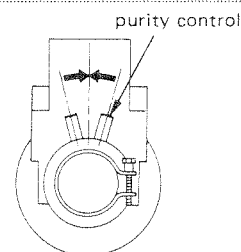


Fig. 3-1.

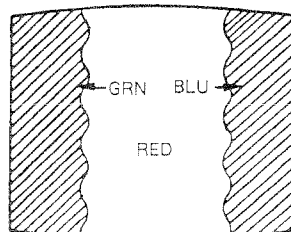


Fig. 3-2.

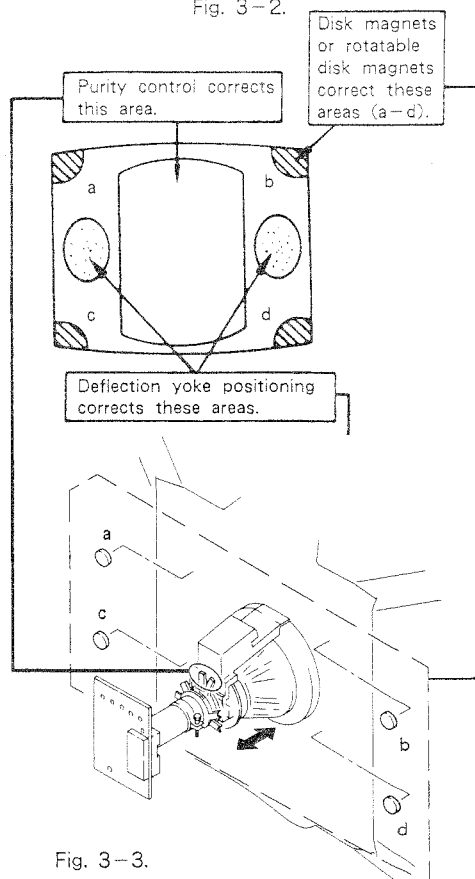
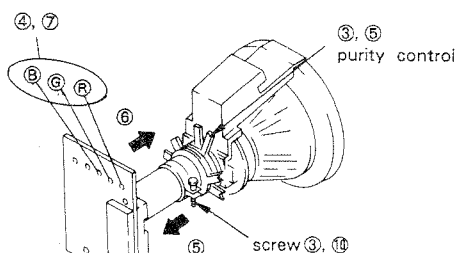


Fig. 3-3.

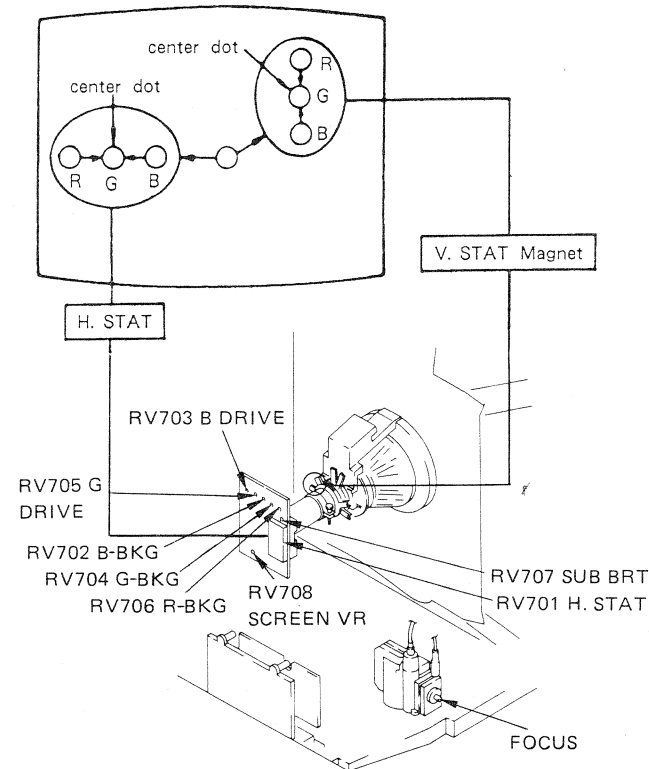


**Note :**  
The circled numbers  
(3 - 7) shown  
above steps.

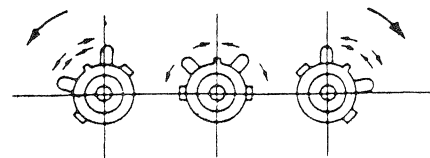


**3-2. CONVERGENCE****Preparation :**

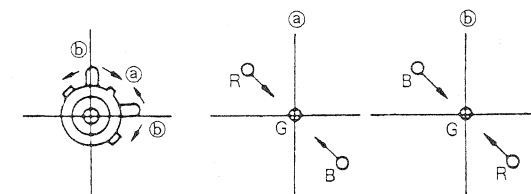
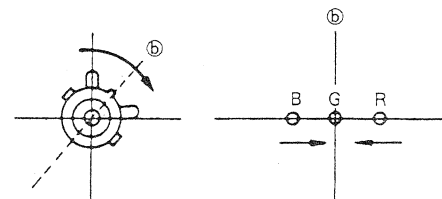
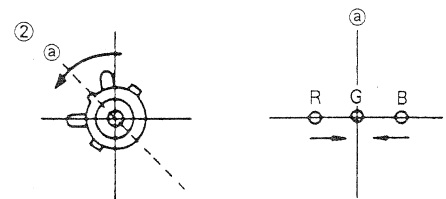
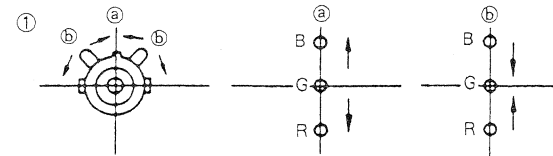
- Before starting, perform FOCUS, H. SIZE, and V. SIZE adjustments.
- Set BRIGHTNESS to minimum.
- Feed in the dot pattern.

**(1) Horizontal and Vertical Static Convergence**

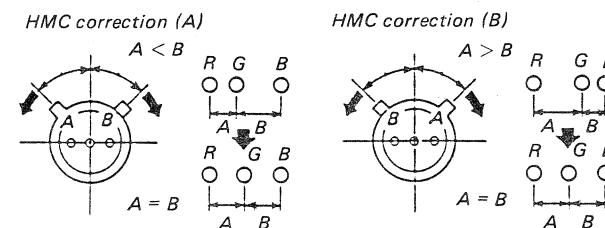
1. Adjust H. STAT VR to coincide red, green and blue dots on the center of screen (Horizontal movement).
2. Adjust V. STAT magnet to coincide red, green and blue dots on the center of screen (Vertical movement).
3. If the red, green and blue dots do not coincide on the center of screen with H. STAT VR, perform horizontal convergence adjustment using H. STAT VR and V. STAT magnet as shown below. (In this case, H. STAT VR and V. STAT magnet effect each other.)
- Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.



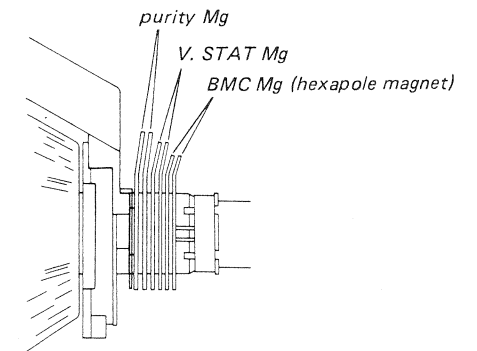
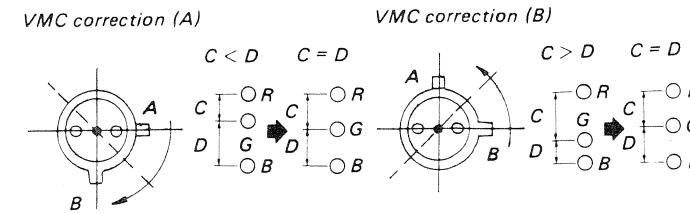
4. When the V. STAT magnet is moved in the direction of arrow (a) and (b), Red, Green and Blue dots move as shown below.

**• HMC and VMC correction for Hexapole Magnet.**

1. HMC (Horizontal, Mis, convergence) correction and motion of the Electron Beam with the Hexapole Magnet.



2. VMC (Vertical, Mis, convergence) correction and motion of the Electron Beam with the Hexapole Magnet.

**(2) Dynamic Convergence Adjustment****Preparation :**

- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.
1. Loosen deflection yoke screw.
  2. Remove deflection yoke spacers.
  3. Move the deflection yoke for best convergence as shown in Fig. 3-4.
  4. Tighten the deflection yoke screw.
  5. Install the deflection yoke spacers.

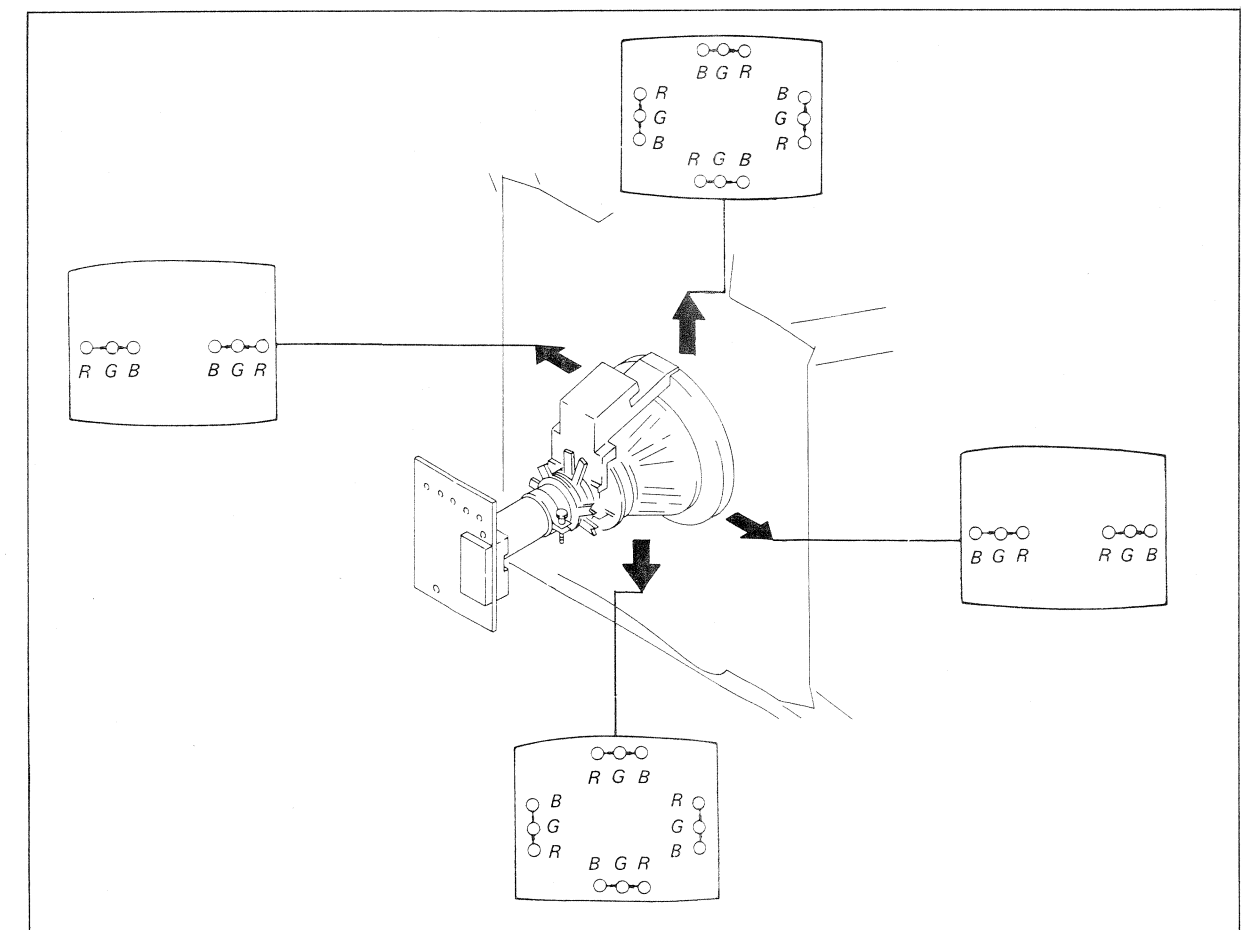
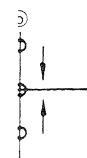
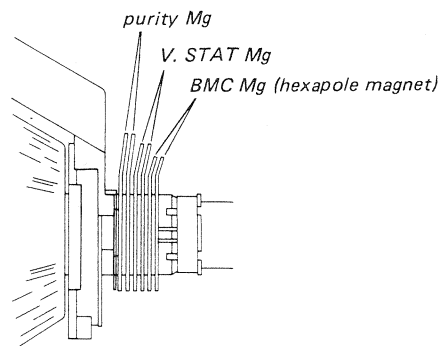
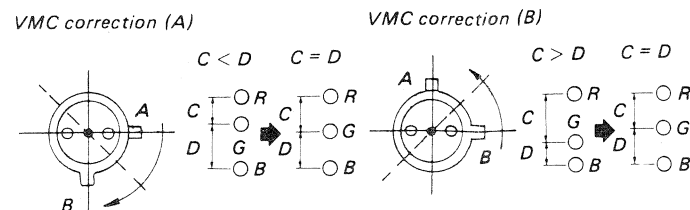


Fig. 3-4

in the  
d Blue



2. VMC (Vertical, Mis, convergence) correction and motion of the Electron Beam with the Hexapole Magnet.



## (2) Dynamic Convergence Adjustment

### Preparation :

- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.
1. Loosen deflection yoke screw.
  2. Remove deflection yoke spacers.
  3. Move the deflection yoke for best convergence as shown in Fig. 3-4.
  4. Tighten the deflection yoke screw.
  5. Install the deflection yoke spacers.

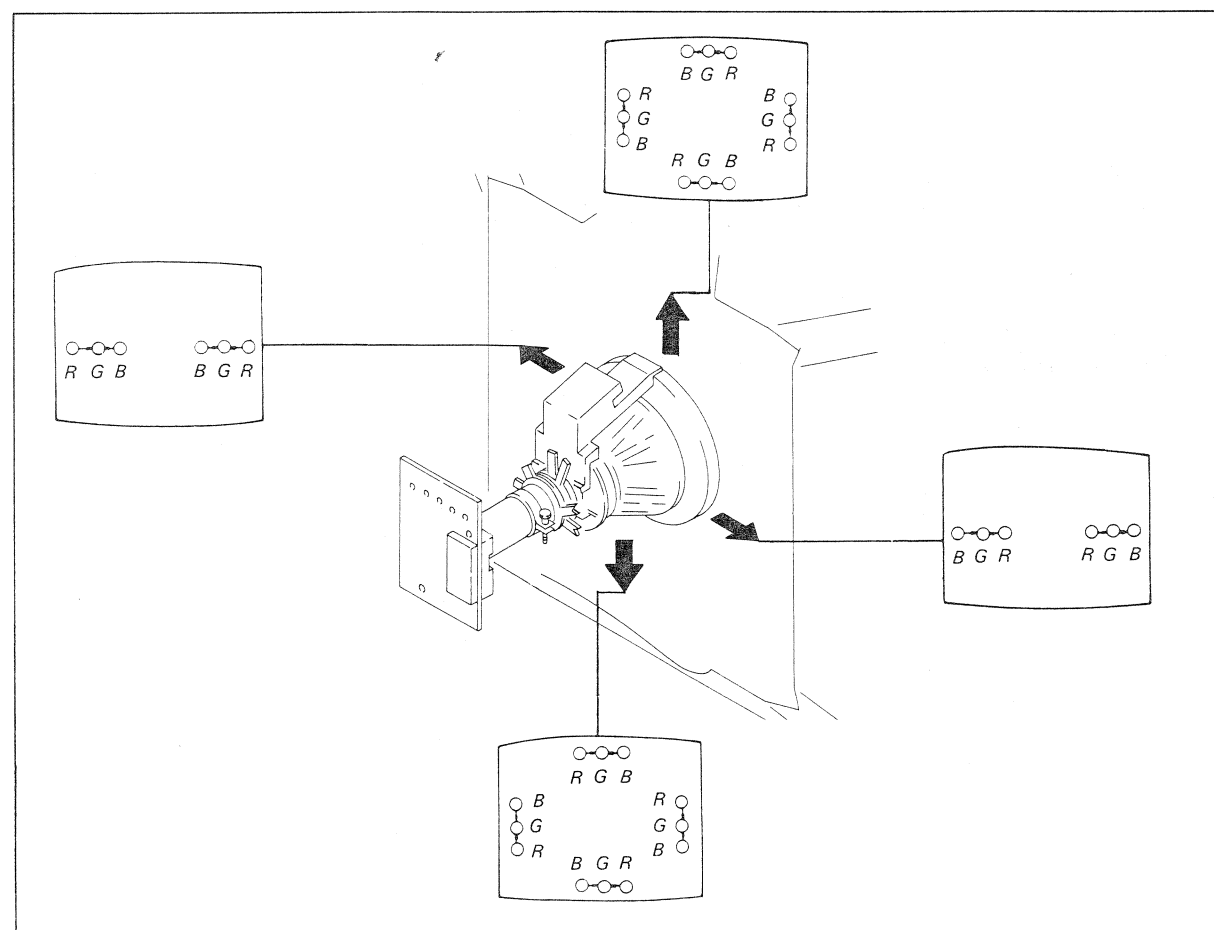
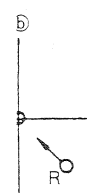
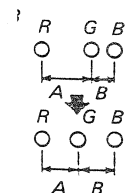


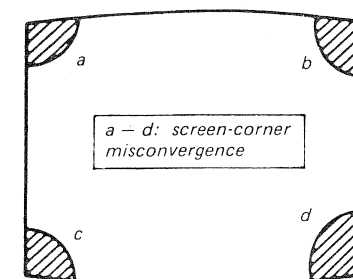
Fig. 3-4



lagnet.  
on and  
xapole



## (3) Screen-corner Convergence



## 3-3. FOCUS ADJUSTMENT

Adjust FOCUS control on the flyback transformer for a best focus.

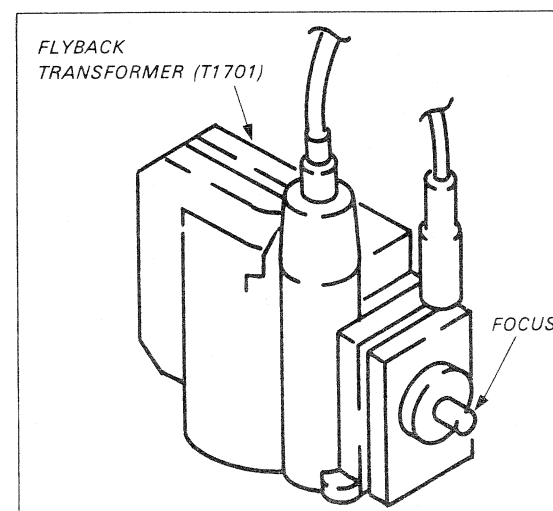


Fig. 3-5

## 3-4. WHITE BALANCE

- Feed in the dot signal from pattern generator.
- PICTURE button ..... 80%  
BRIGHTNESS ..... 50%

### [SCREEN (G2)]

1. Adjust BKG VRs (RV702, RV704, and RV706) so that voltages on the red, green and blue cathodes are 180 V dc with an oscilloscope as shown in Fig. 3-6.

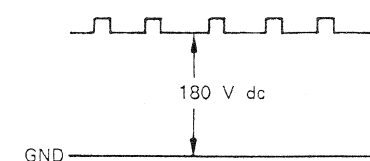
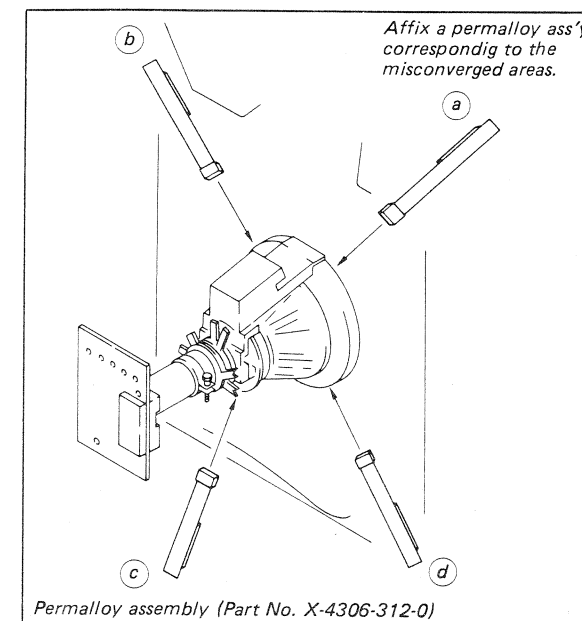


Fig. 3-6



Permalloy assembly (Part No. X-4306-312-0)

2. Observe the screen and adjust RV708 (SCREEN) to obtain the faintly visible background of dot signal.  
Note the color that first becomes visible by turning SCREEN VR.  
Do not turn a BKG control for this color.

### [WHITE BALANCE]

1. Feed in the white signal from pattern generator.
2. Set the PICTURE button to obtain the faintly visible raster on the screen.
3. Observe the screen and adjust the other two BKG VRs for best white balance.
4. Set the PICTURE button at maximum.
5. Observe the screen and adjust the DRIVE VRs (RV703, RV705) for best white balance.
6. Repeat steps 2 through 5 several times.

## SECTION 4

## SAFETY RELATED ADJUSTMENTS

### ☒ R1707, CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components (marked with ☒ on the schematic diagram).

IC1710, PM1700, R1703, R1707, R1700, R1713, R1716

#### (1) Preparation before confirmation

1. Turn the POWER switch ON, and receive entirely white signals and set the PICTURE and BRIGHTNESS buttons to maximum.
2. Confirm that the voltage of the TP85 is more than 13 V DC when the set is operating normally with 120 V AC supply.

#### (2) Hold-down operation confirmation

1. Turn the POWER switch ON, and receive entirely white signals and adjust ABL current to  $1580 \pm 20 \mu\text{A}$  with PICTURE and BRIGHT etc buttons.
2. Apply DC voltage of over 17.38 V gradually to the TP85 via 1T40 from the DC stabilized power source. Confirm that the minimum voltage is less than 18.38 V DC whereby the raster disappears during operation of hold-down circuit.

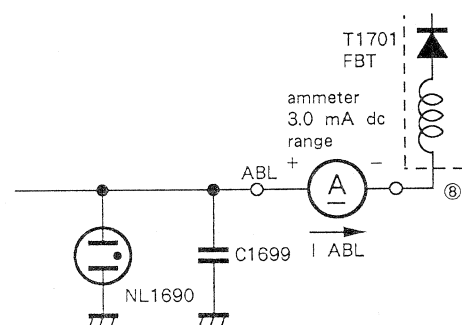
NOTE: When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

3. Turn the POWER switch ON, and receive dot signals and adjust ABL current to  $210 \pm 10 \mu\text{A}$  with PICTURE and BRIGHT etc buttons.
4. Apply DC voltage of over 18.51 V gradually to the TP85 via 1T40 from the DC stabilized power source. Confirm that the minimum voltage is less than 19.51 V DC whereby the raster disappears during operation of hold-down circuit.

NOTE: When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

#### (3) Hold-down readjustment

When step (2) is not satisfied, readjustment should be performed by altering the resistance value of R1707 (a component marked with ☒).



### CONFIRMATION WHEN REPLACING H. V. R. (HIGH-VOLTAGE REGISTOR)

The following adjustments should always be performed with reference to whether an X-ray radiation control circuit is connected or not, when replacing H. V. R. (High-Voltage Registor)

\*This check is to be performed when H. V. R. only is replaced, and has no relation to the hold-down circuit readjustment for replacement of parts marked ☒.

#### (1) Connection confirmation

1. Turn the POWER switch ON, and receive entirely white signals and set the PICTURE and BRIGHTNESS buttons to maximum.
2. When the set is operating normally with 120 V AC supply confirm that the voltage of the TP85 is over 13 V DC.

\*Use a digital multimeter whose input impedance over 100 MΩ when confirming the voltage of the TP85.

### CONFIRMATION WHEN REPLACING IC681

With the condition that applying AC 120 V and the TV set is in operation, confirm the AC relay will go off when  $150.5 \pm 0.5 \text{ V}$  is supplied to TP91 from an external DC power supply.

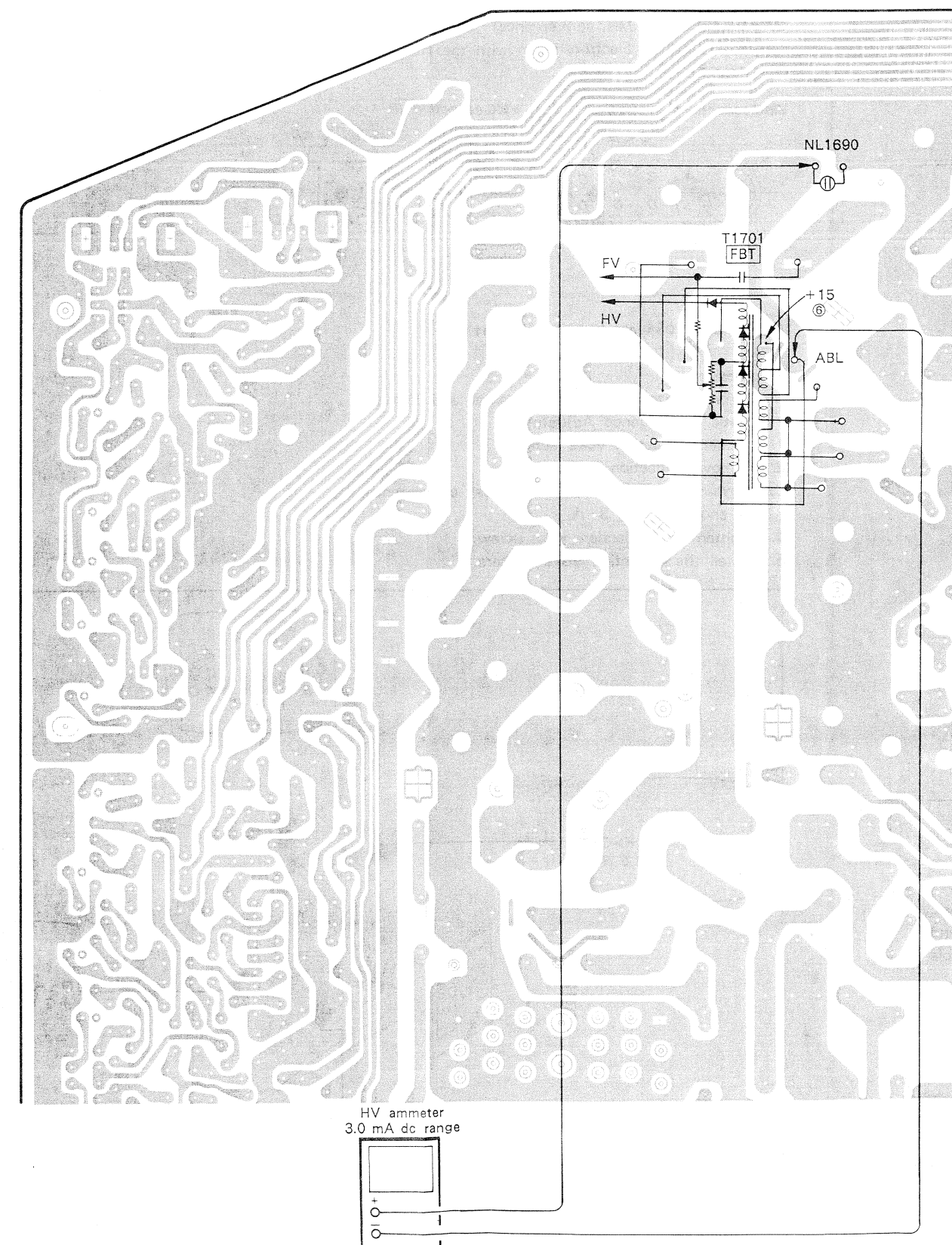
Remove the external DC voltage immediately after the relay went off.

### +B MAX VOLTAGE CONFIRMATION

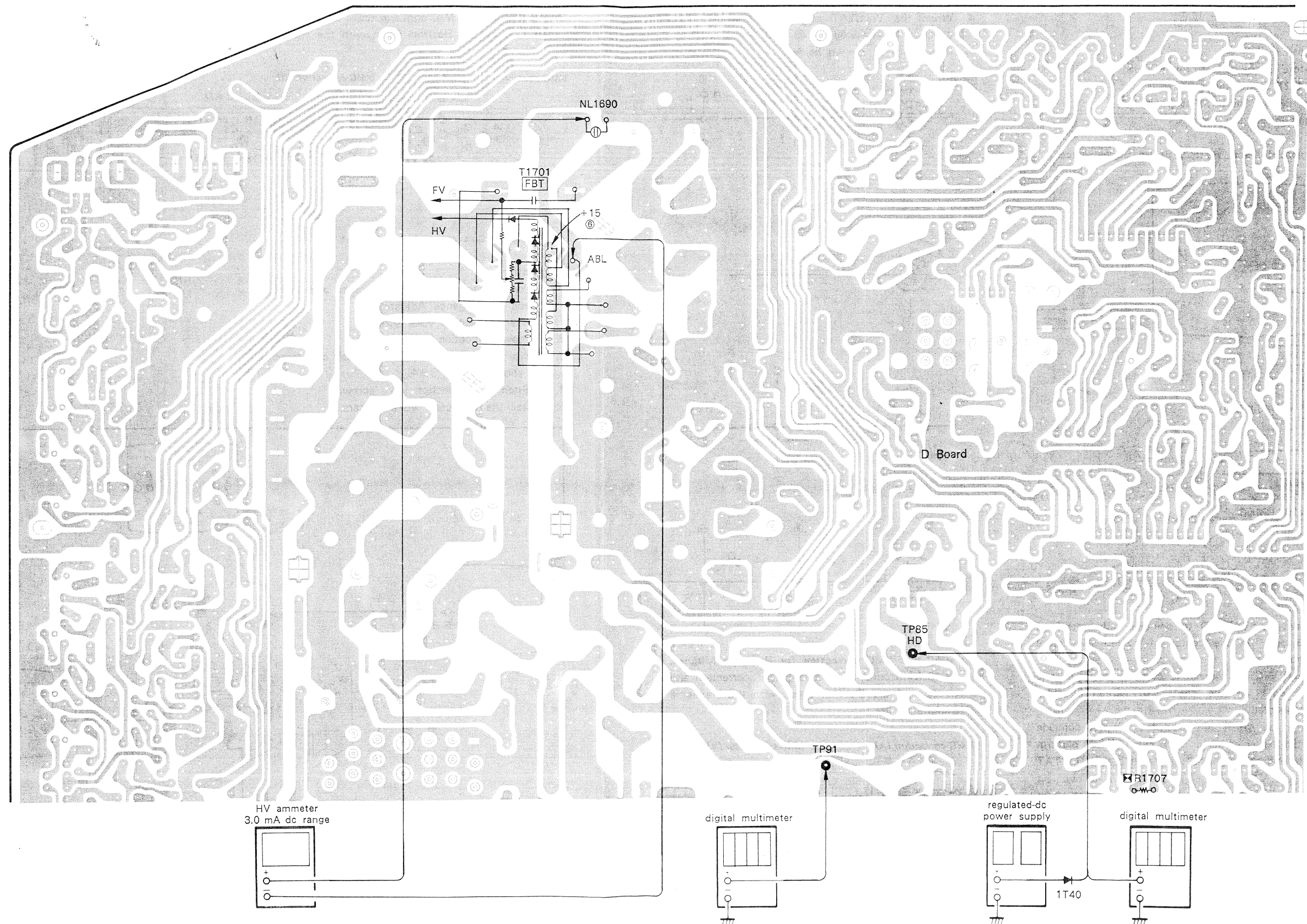
The following adjustments should always be performed when replacing IC681.

#### (1) The +B voltage confirmation

1. Supply 130  $\pm 5$  V AC to with variable auto-transformer.
2. Receive monoscope signals.
3. Set the PICTURE button into 80% and the BRIGHTNESS button into RESET.
4. Confirm the voltage of TP91 is less than 136.0 V DC.
5. If step 4 is not satisfied, replace IC681 and repeat above steps.





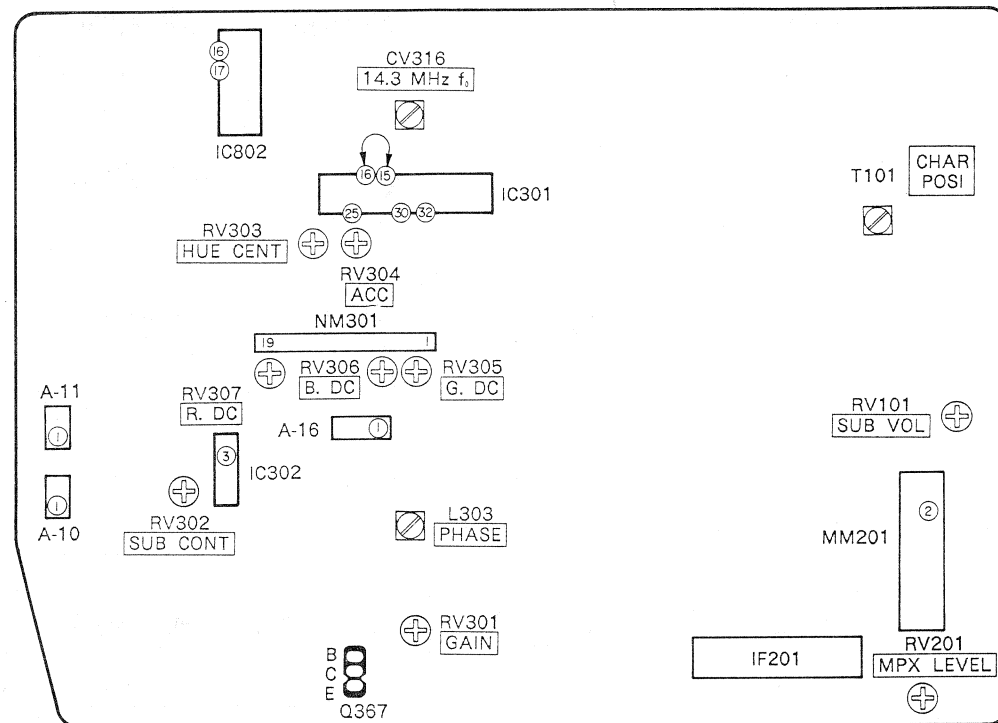


## SECTION 5

### CIRCUIT ADJUSTMENTS

#### 5-1. A BOARD ADJUSTMENTS

A board -Component side-



#### RF AND AGC ADJUSTMENT

1. Adjust with IF201 (VIF PACK) so as to disappear snow noise and cross-modulation.
2. Confirm them at every channel.

#### COMB TYPE FILTER ADJUSTMENT (RV301, L303)

1. Set at TV mode and receive color-bar signal.
2. Connect an oscilloscope to the Y signal output of the comb type filter (the emitter of Q367), and adjust RV301 (GAIN) and L303 (PHASE) taking tracking, so as the chroma component of the waveform to becomes minimum. (Fig. 5-1)

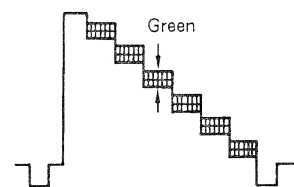


Fig. 5-1

#### 14.3 MHz f<sub>0</sub> ADJUSTMENT (CV316)

1. Receive color-bar signal.
2. HUE VOLUME ..... 50% (Resetting)  
PICTURE VOLUME ..... 70%.

3. Connect pin ③ of IC301 to GND through via 10 kΩ resistor.
4. Short pins ⑮ and ⑯ of IC301.
5. Observe pin ② of IC301 with an oscilloscope, and confirm that the color signal is out of synchronization.
6. Turn CV316 to make color synchronization.

#### SUB-CONTRAST ADJUSTMENT (RV302)

1. Receive color-bar signal.
2. PICTURE ..... MAX  
COLOR ..... MIN
3. Connect an oscilloscope pin ⑥ of NM301.
4. Adjust to  $2.1 \pm 0.1$  Vp-p with RV302 (SUB CONT) as shown in Fig. 5-2.

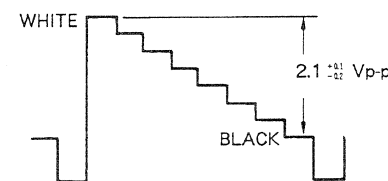
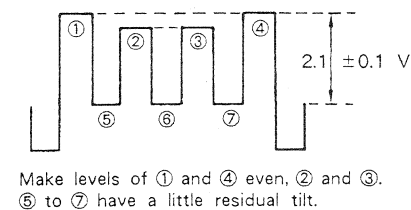


Fig. 5-2

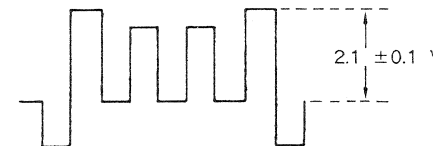
CAUTION: Measurement should be performed under the conditions that removing A-16 connector and not applying ABL.

#### HUE ADJUSTMENT AND ACC ADJUSTMENT (RV303, 304)

1. Receive color-bar signal.
2. HUE ..... RESET  
COLOR ..... RESET  
PICTURE .... MAX
3. Observe pin ⑥ of NM301 with an oscilloscope, and adjust the output waveform so as to become that as shown in the diagram by turning the ACC volume (RV304) and Hue volume (RV303).



4. Confirm that the voltage pin ② of IC301 at the middle point of the ACC volume (RV304) should be less than 9 V.
5. Confirm that the blue output pin ⑥ of NM301 should be  $2.1 \pm 0.1$  V after adjusted.



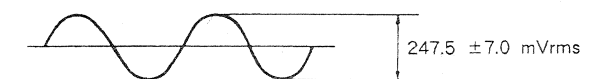
CAUTION: Measurement should be performed under the conditions that removing A-16 connector and not applying ABL.

#### NEW DYNAMIC COLOR ADJUSTMENT (RV305, RV306, RV307)

1. Receive color-bar signal.
2. N. D. C. .... Blue ON state  
PICTURE button ..... MIN  
BRIGHTNESS ..... 50% (resting)
3. Watch the potential at pin ⑤ (G. DC) and pin ⑧ (B. DC) of NM301 to the pedestal at pin ⑮ (R. DC-1) of NM301 with RV305 and RV306, and adjust so that the input level off-set becomes disappear.
4. Apply 6.0 V DC to pin ① (SUB BRT) of A-16 connector, and adjust the pedestal levels pin ⑮ (R. DC-1) and pin ⑯ (R. DC-2) of NM301 so as to they become the same level with RV307.
5. Switch the New. Dynamic Color at green and red, and confirm that there have been no differences in adjustments.

#### MPX LEVEL ADJUSTMENT (RV201)

1. Receive 400 Hz (100% modulation) sound signal.
2. Connect an RMS meter to pin ② of MM201.
3. Adjust RV201 so that the MPX level is  $247.5 \pm 7.0$  mVrms.



#### SUB VOL ADJUSTMENT (RV101)

1. Receive 1.0 kHz (230 mVrms) sound signal.
2. VOLUME button ..... MAX
3. Adjust RV101 (SUB VOL) so that the pin ⑮ and pin ⑯ of IC802 output level is  $700 \pm 50$  mVrms.
4. At this time, confirm the speaker output level (pin ① of A-11 connector and pin ① of A-10 connector) is above 7.40 Vrms.

#### INDICATOR POSITION ADJUSTMENT (T101)

1. Receive a color-bar signal.
2. PICTURE button ..... MAX  
BRIGHTNESS button .... 50%
3. Adjust T101 as shown in Fig. 5-3.

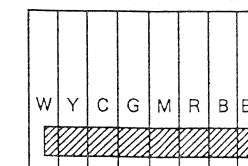
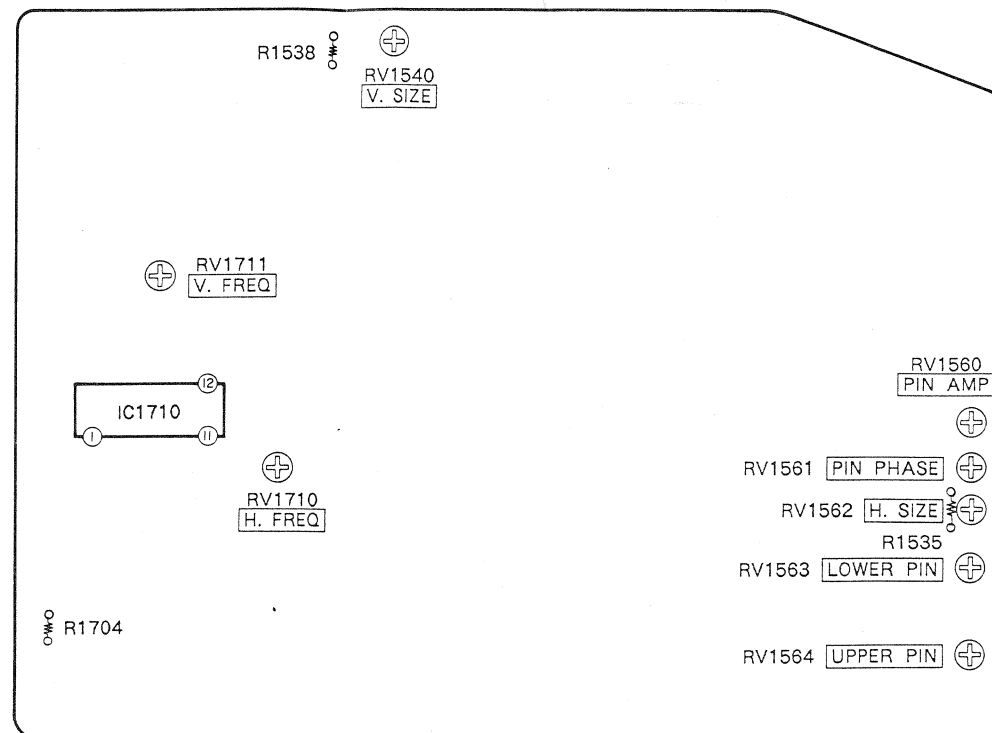


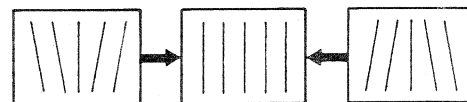
Fig. 5-3

## 5-2. D BOARD ADJUSTMENTS

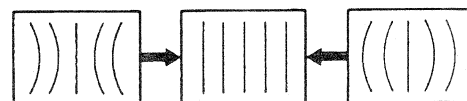
D board -Component side-



## PIN PHASE ADJUSTMENT (RV1561)



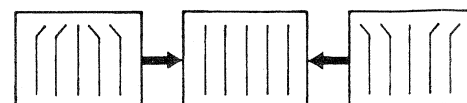
## PIN AMP ADJUSTMENT (RV1560)



## LOWER PIN ADJUSTMENT (RV1563)

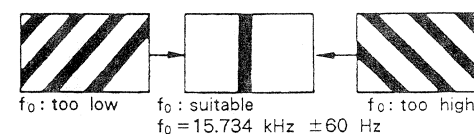


## UPPER PIN ADJUSTMENT (RV1564)



## H. FREQ ADJUSTMENT (RV1710)

1. Connect pin ① of IC1710 to pin ⑪ through 1.0 k $\Omega$ . At this time, be sure to connect pin ③ of IC302 on the A board to 12 V through 10 k $\Omega$ .
2. Turn the horizontal synchronizing volume (RV1710), and adjust the volume so as to flow of the picture becomes as shown in diagram.
3. Remove the 1.0 k $\Omega$  resistor and be sure to confirm the horizontal synchronization is normal and whether picture becomes out of order when channel is switched or not.



## V. FREQ ADJUSTMENT (RV1711)

1. VIDEO Mode (no-signal).
2. Connect frequency counter across pin ⑫ of IC1710 and ground.
3. Adjust RV1711 for 55.0  $\pm$  0.5 Hz on the frequency counter.

## PICTURE BLANKING CONFIRMATION

(US. Model Only)

The following adjustments should always be performed when replacing the following components.

Regarding components of ※R1704.

IC301, PM1700, D1543, R1552, R1704, R1705, R1713, R1716, R1637, R1700, R339, R340

1. Turn the POWER switch ON, and receive monoscope signal.
2. Set the PICTURE button into 80% and the BRIGHTNESS button into DETENT.
3. Apply DC voltage 16.00  $\pm$  0.05 to the TP85 Via 1T40 from the DC stabilized power source.
4. Confirm that the picture is blanked till +B voltage is more than 121.0 V DC.
5. Confirm that the picture is not blanked when INPUT voltage is more than 96 V AC.

## V. SIZE CONFIRMATION

The following adjustments should always be performed when replacing the following components.

Regarding components of ※R1538 (V. SIZE).

DY, C1539, C1548, IC1710, T1701, RV1540, R1538, R1539, R1546, R1671, R1672, R1732

1. Turn the POWER switch ON, and receive monoscope signal.
2. Set the PICTURE button into 80% and the BRIGHTNESS button in to DETENT.
3. Adjust RV1540 (V.SIZE) so that the V.SIZE becomes minimum, and confirm that the raster size is 275 cm or more.

## H. SIZE CONFIRMATION

The following adjustments should always be performed when replacing the following components.

Regarding components of ※R1535 (H. SIZE).

DY, RV1562, T1701, C1506, C1507, C1509, C1510, R1535, R1577, R1570, R1576

1. Turn the POWER switch ON, and receive monoscope signal.
2. Set the PICTURE button into 80% and the BRIGHTNESS button into DETENT.
3. Confirm that the H.SIZE at minimum should not exceed 16.9 frames by adjusting RV1562 (H. SIZE).



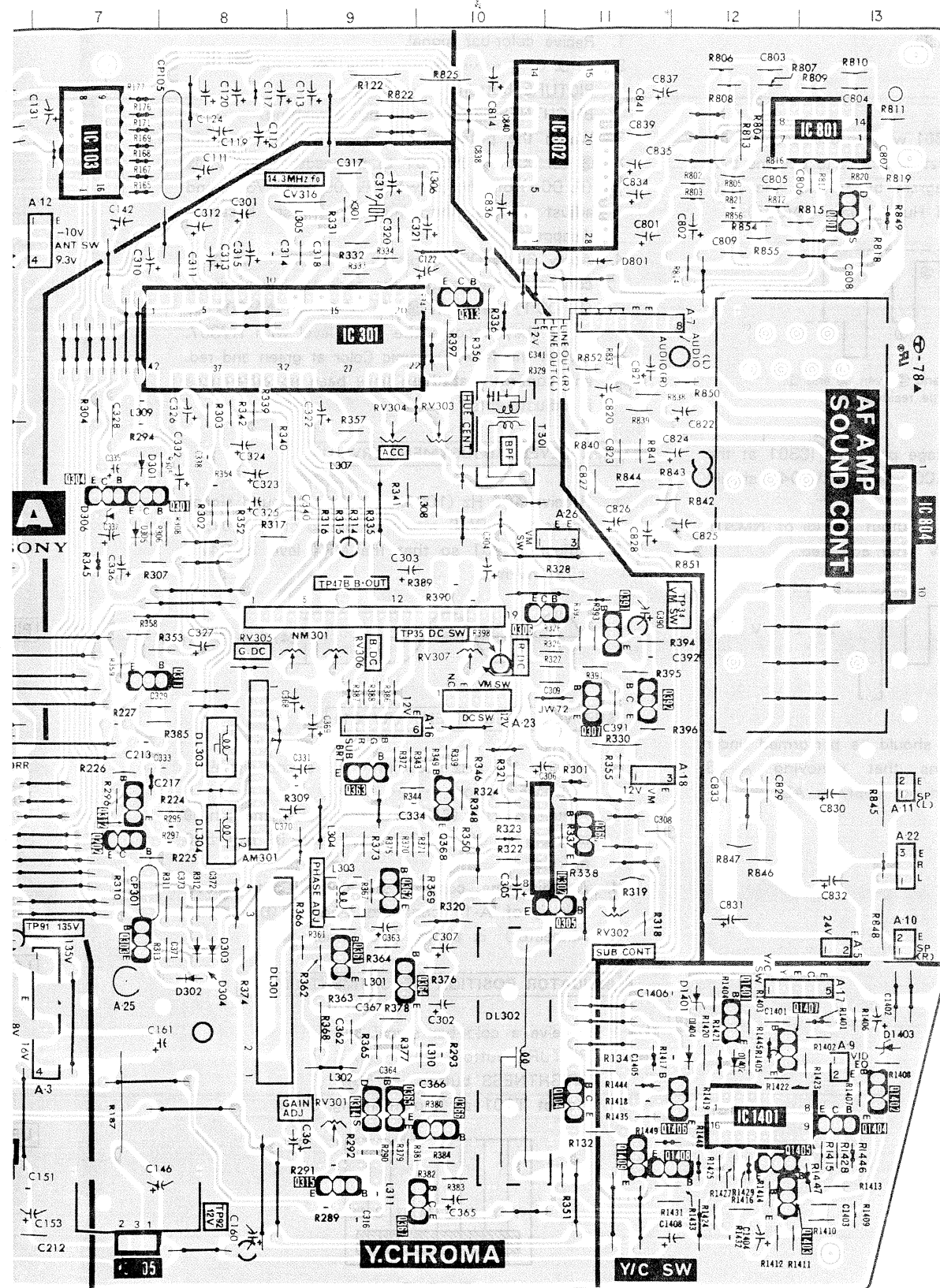
**KV-27SXR10**  
RM-755

[TUNER BAND SW, VIF, SIF]  
Y CHROMA, AUDIO OUT  
[PLL CONTROLLER]

The schematic diagram illustrates the internal wiring and component placement of a Sony remote control unit. It includes various sections such as:

- REMOTE CONT DISPLAY**: Located on the left side, featuring a series of LEDs and associated driver circuitry.
- SONY**: The central branding area, likely housing the main microcontroller or timing ICs.
- TUVISIF**: A section related to television signal processing or interfacing.
- MTS**: Matrix Television System section, handling video output signals.
- MPX LEVEL**: Matrix Processor Level section, managing audio and video mixing.

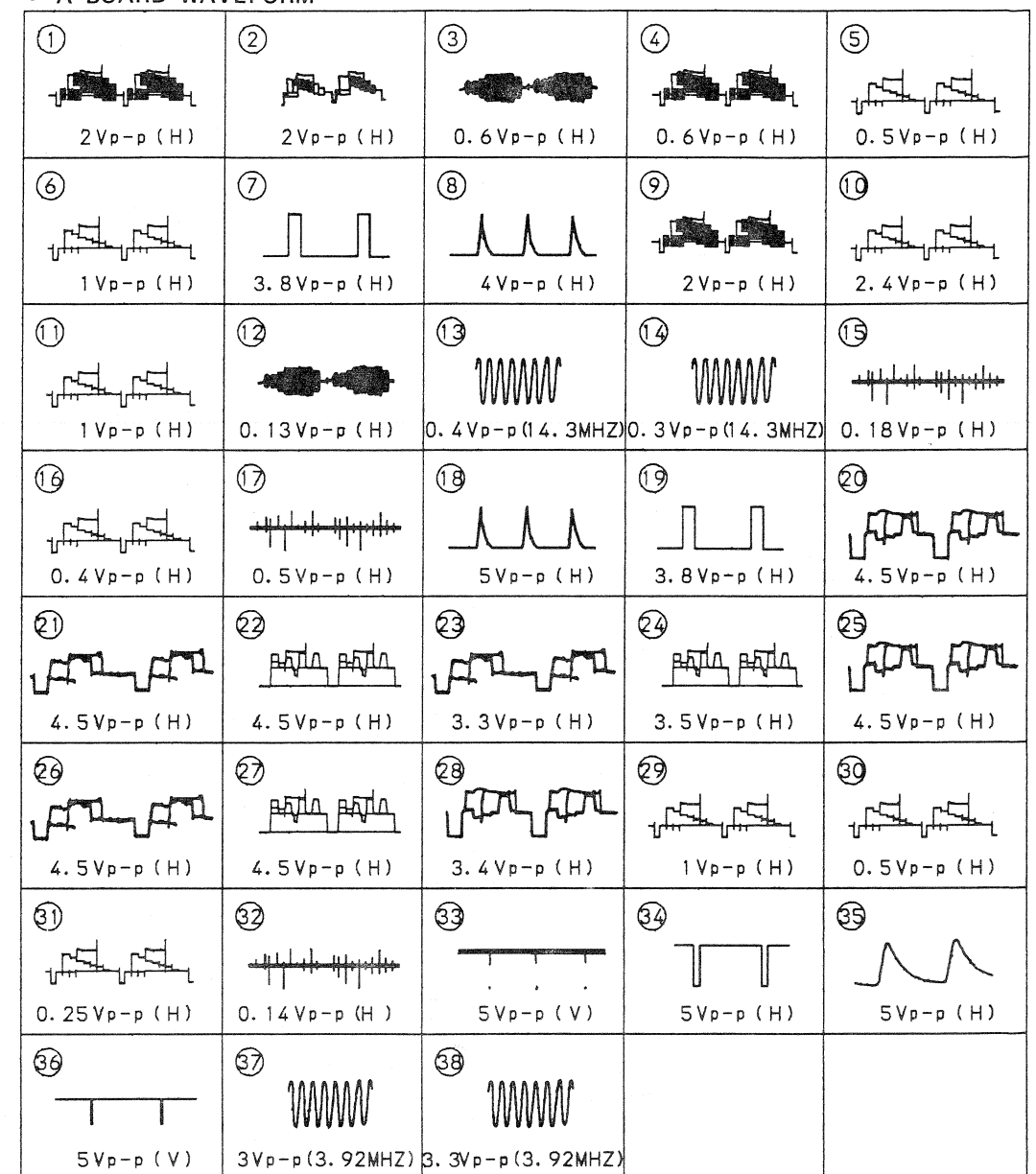
The diagram shows a complex network of traces connecting these functional blocks and individual components like resistors (R1 through R187), capacitors (C1 through C161), diodes (D1 through D13), and integrated circuits (IC-101 through IC-201). Power supply rails for 1.5V, 3V, 5V, 9.3V, 10V, and 12V are indicated throughout the layout.



## A BOARD

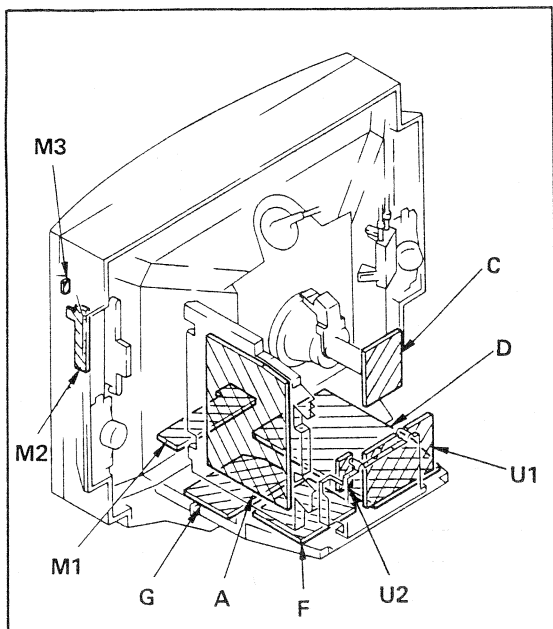
IC		Q363 F-9		D1401 H-12	
IC101	C-4	Q364	H-10	D1402	I-12
IC102	B-4	Q365	I-9	D1403	H-13
IC103	A-7	Q366	I-10	D1404	H-12
IC105	J-7	Q367	J-9	VARIABLE CAPACITOR CV316 B-9	
IC106	I-6	Q368	F-10		
IC107	G-4	Q369	G-11		
IC201	J-6	Q391	E-11		
IC301	C-9	Q392	F-11	VARIABLE RESISTOR RV101 F-1 RV201 J-2 RV301 I-9 RV302 H-11 RV303 C-10 RV304 C-9 RV305 E-8 RV306 E-9 RV307 E-10	
IC302	G-11	Q801	B-13		
IC801	A-13	Q1401	H-12		
IC802	A-11	Q1402	I-13		
IC804	D-13	Q1403	J-13	DIODE D101 H-5 D102 F-4 D104 F-5 D107 B-6 D108 C-6 D109 B-5 D110 F-3 D111 B-3 D112 B-3 D113 B-2 D114 A-2 D115 E-4 D118 D-6 D119 D-6 D120 D-6 D121 D-5 D122 F-2 D123 F-3 D124 A-2 D125 B-2 D126 B-2 D127 B-1 D128 E-5 D131 H-2 D301 D-7 D302 H-8 D303 H-8 D304 H-8 D305 D-7 D306 D-7 D801 B-11	
IC1401	I-12	Q1404	I-13		
TRANSISTOR		Q1405	I-12		
		Q1406	I-12		
		Q1407	H-13		
		Q1408	I-12		
		Q1409	I-11		

## • A BOARD WAVEFORM





## 6-2. CIRCUIT BOARDS LOCATION



## 6-3. SCHEMATIC DIAGRAMS

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  
pF :  $\mu\text{F}$  50 WV or less are not indicated except for electrolytics.
- All resistors are in ohms.
- Indication of resistance, which does not have one for rating electrical power is as follows.

Pitch : 5 mm  
Rating electrical power 1/4W

- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by and repeat the adjustment until the specified value is achieved.
- When replacing the part in below table be sure to perform the related adjustment.

IC1710, PM1700, R1700, R1703, R1707, R1713, R1716	R1707 (HOLD-DOWN OPERATION)
---	--------------------------------

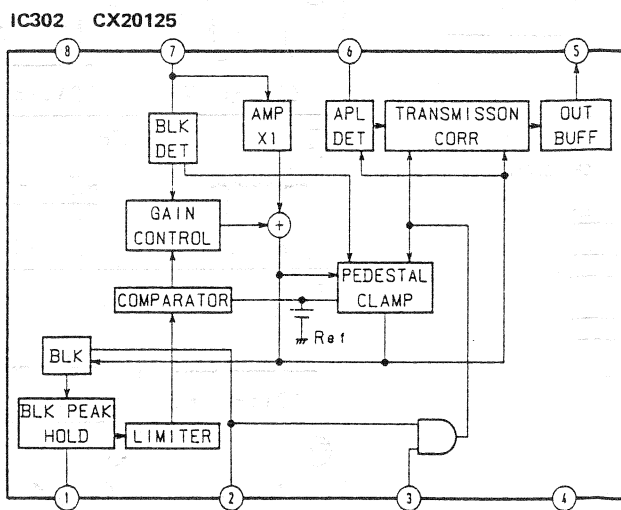
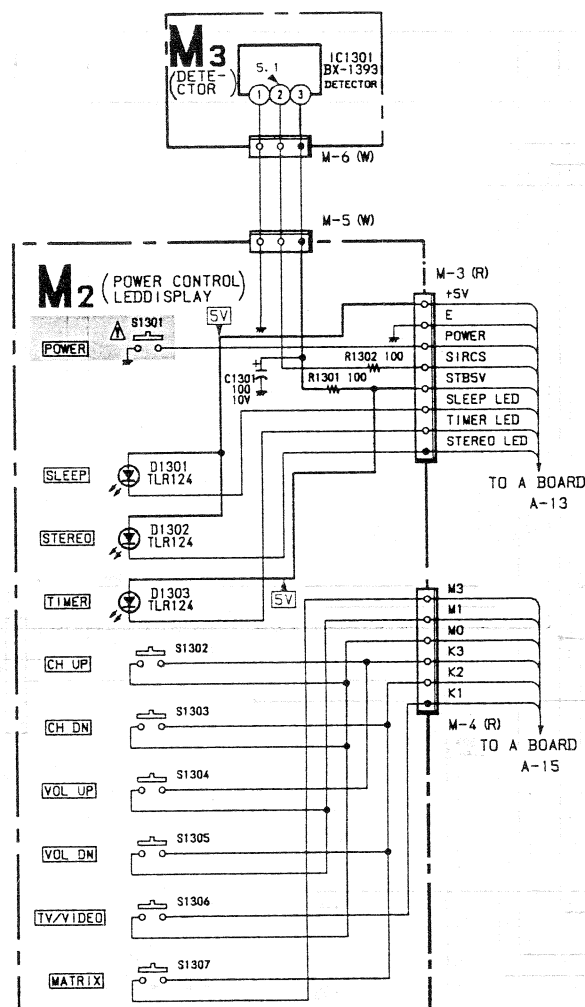
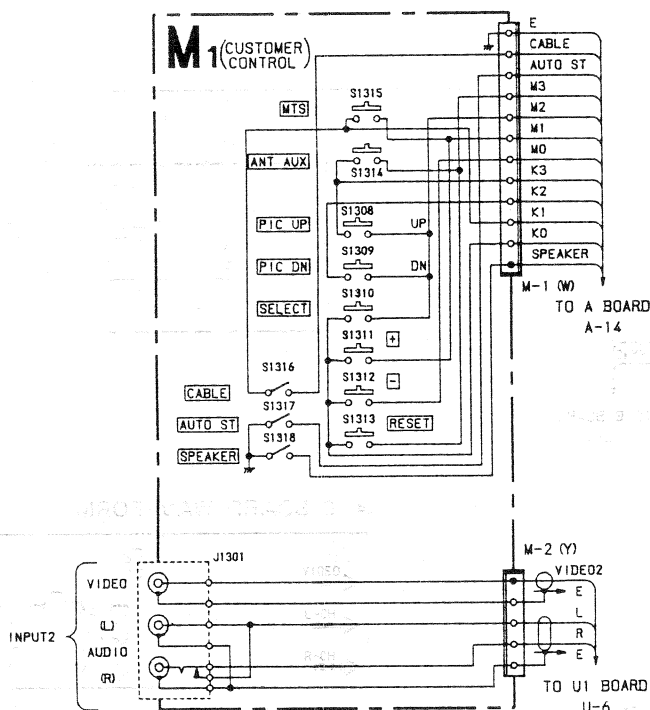
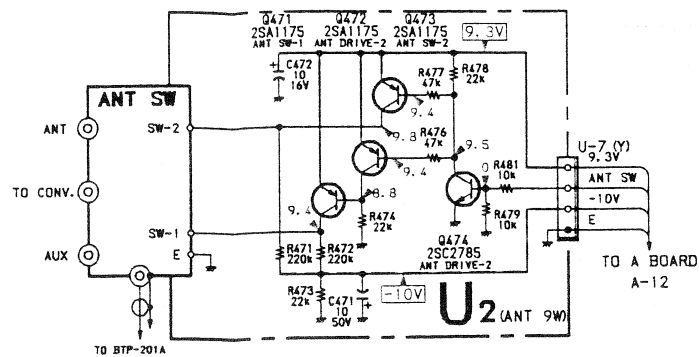
- All voltages are in V.
- Voltage are dc with respect to ground unless otherwise noted.
- Readings are taken with a 10 M $\Omega$  digital multimeter.
- : adjustment for repair.
- Readings are taken with a color-bar signal input.
- The hold down chekpoint is TP85.
- : B+ bus.
- : B- bus.
- : signal pass.

## Reference information

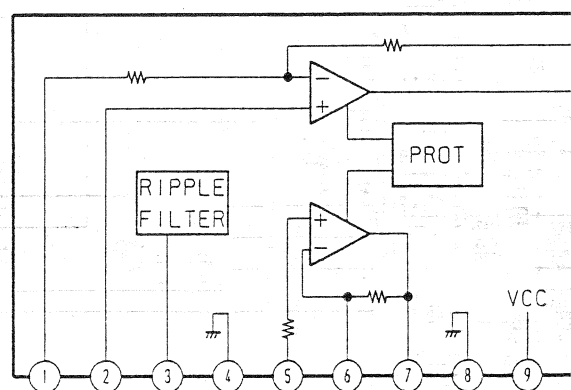
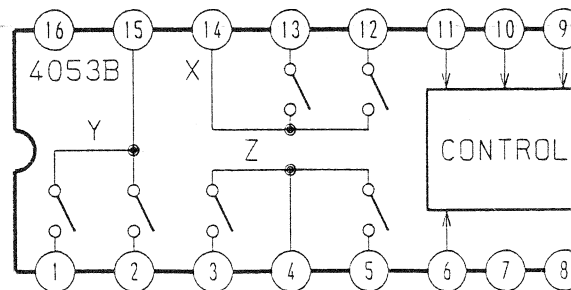
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE WIREWOUND
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOIR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED-PORYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH-TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un tramé et une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

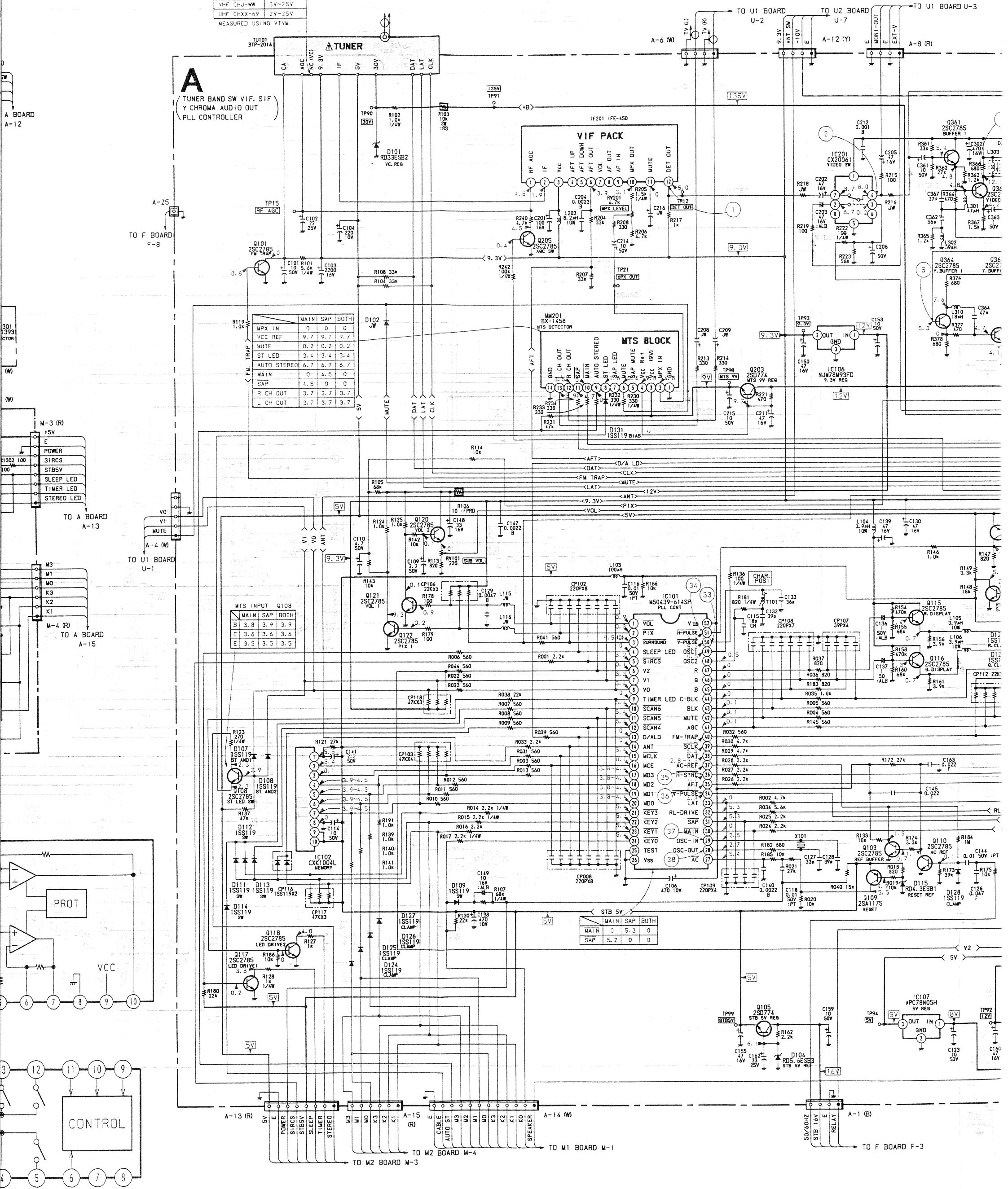


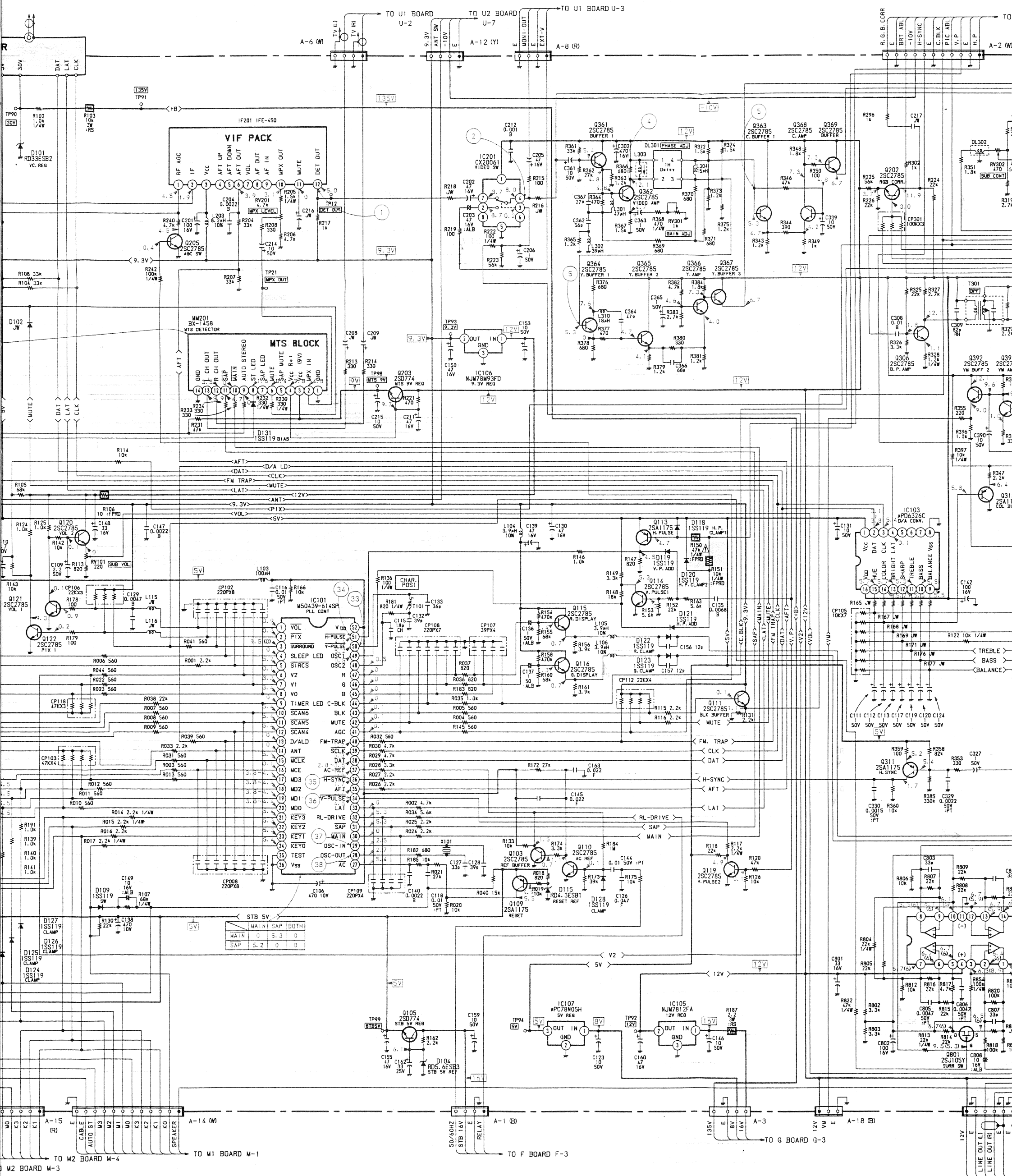
## IC804 LA4270

IC1401  $\mu\text{PD4053BC}$ 

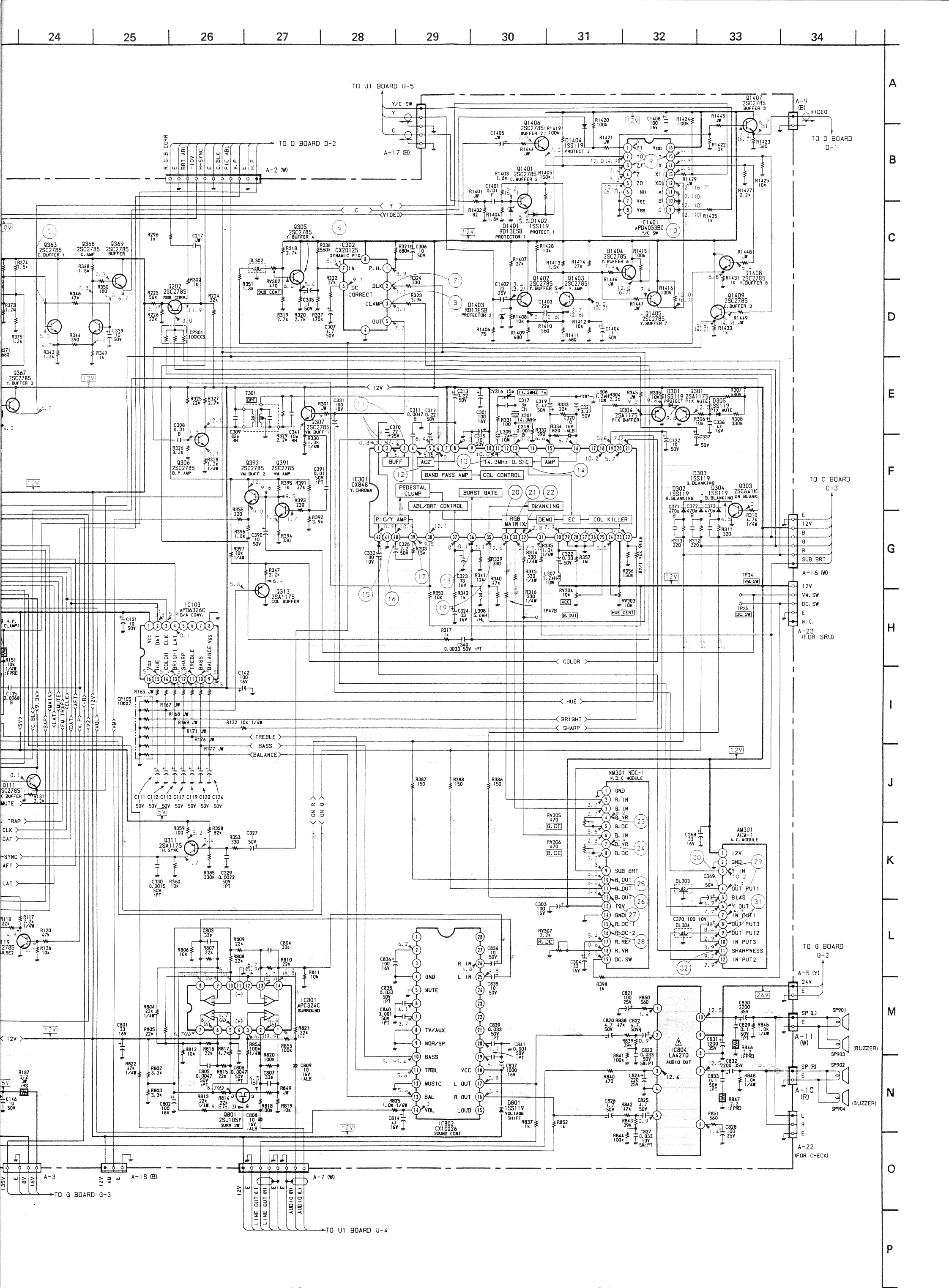
CHANNEL	VOLTAGE
VHF CH2-A-3	2V-22V
VHF CHA-2-13	2V-22.5V
VHF CHU-WW	3V-25V
UHF CHX-6-9	2V-25V

MEASURED USING VTVM

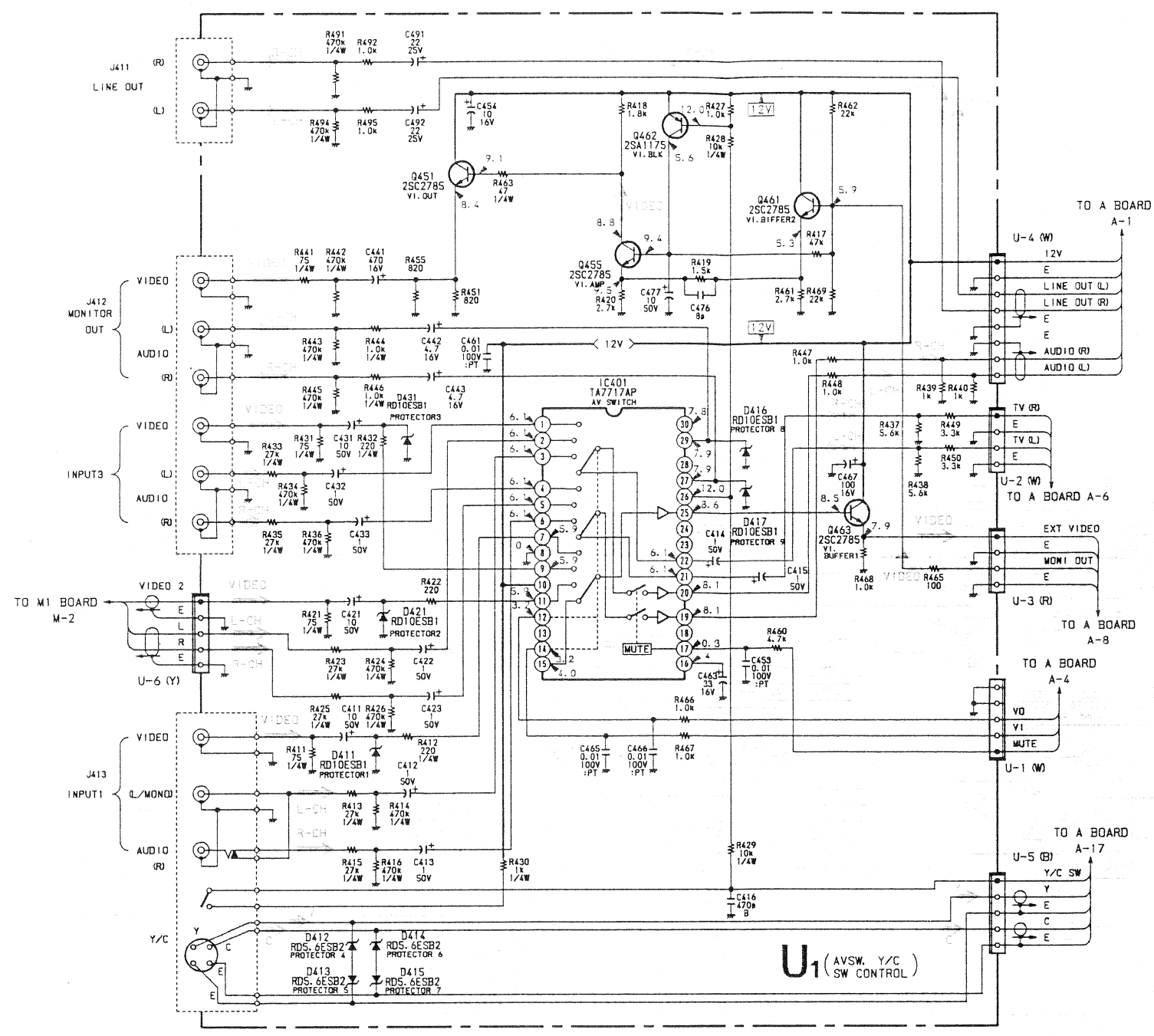




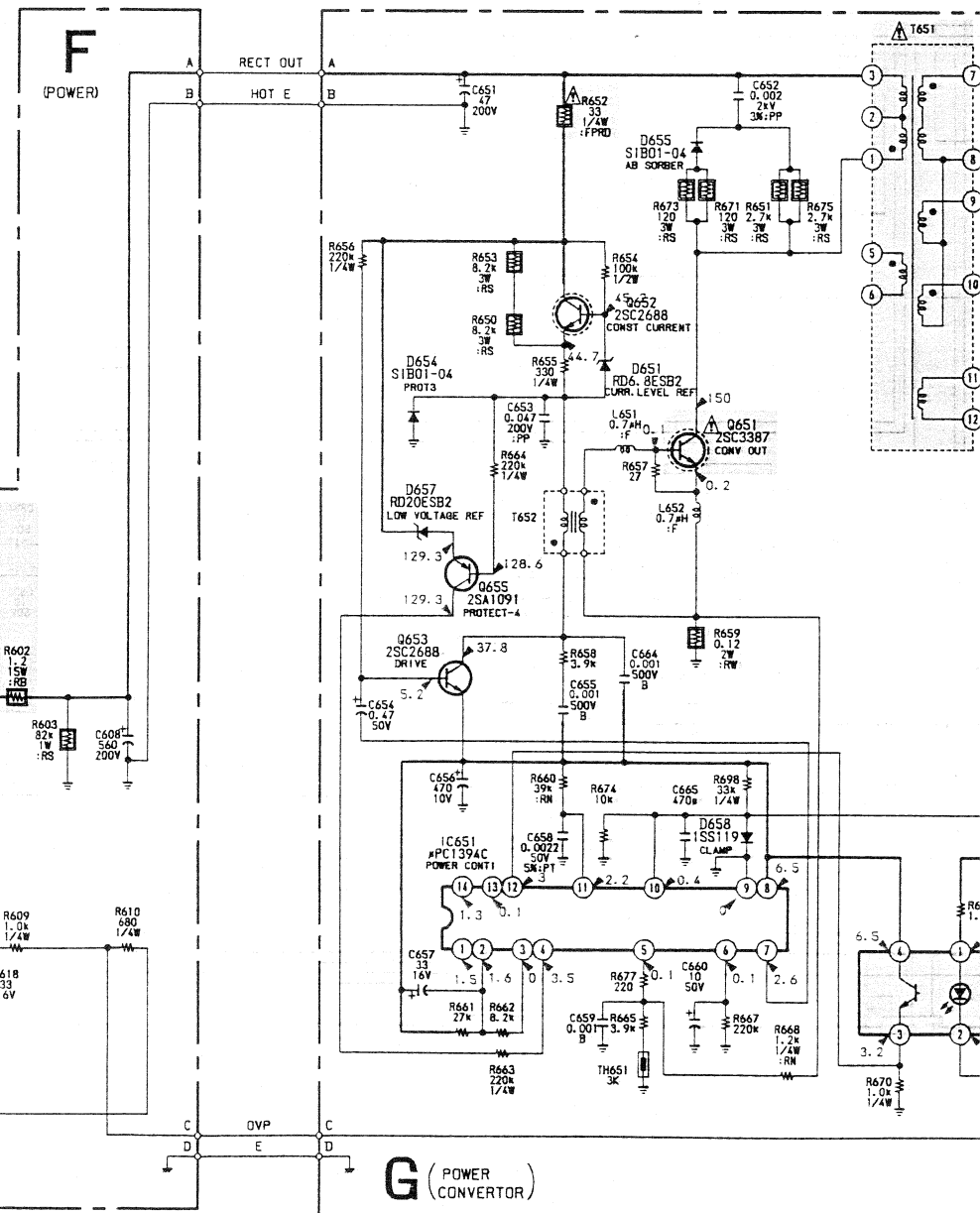
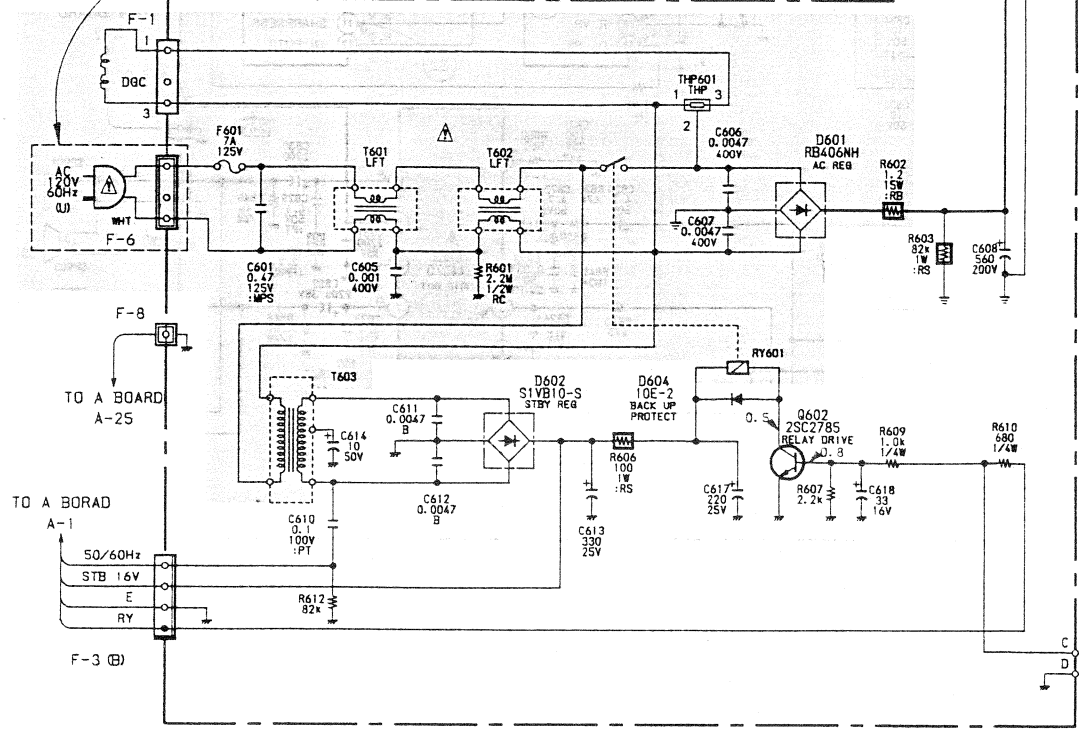




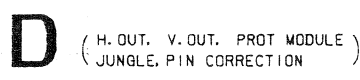
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P



CAUTION (US MODEL ONLY)  
THIS SET IS EQUIPPED WITH A POLARIZED AC POWER CORD PLUG  
(ONE BLADE OF THE PLUG IS WIDER THAN THE OTHER).  
WHEN REPLACING THE AC POWER CORD, BE SURE TO CONNECT IT  
WITH SPECIFIED PART NUMBER AS SHOWN IN THIS DIAGRAM.

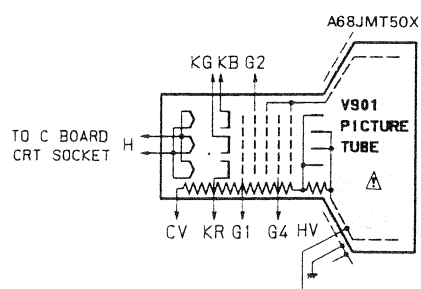




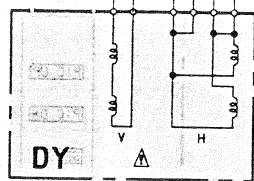
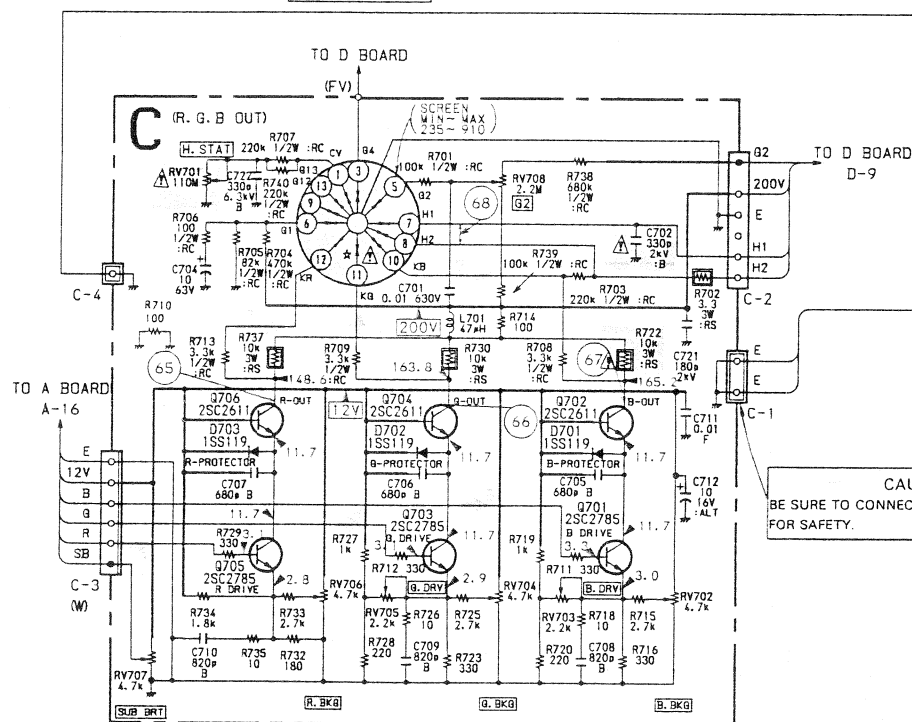




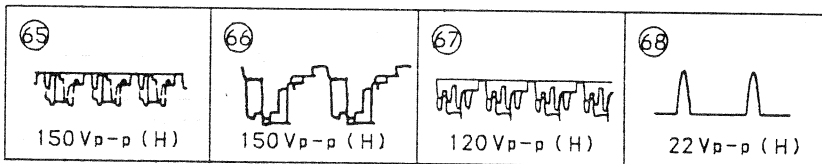
\* SEE PAGE 22



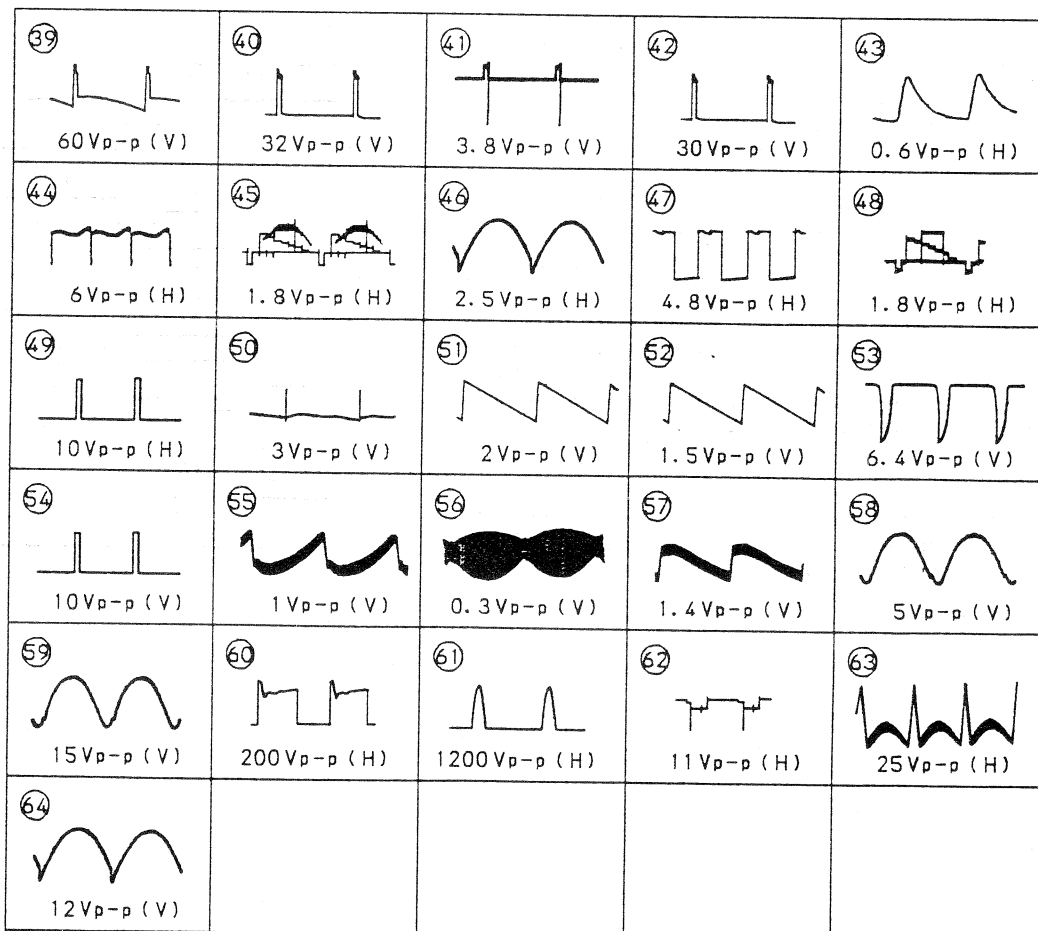
CAUTION  
WHEN REPLACING HVR BE SURE TO CHECK THE HOLD  
DOWN CHECK POINT VOLTAGE. REFER TO THE SAFETY  
ADJUSTMENT SECTION OF THE SERVICE MANUAL.



#### • C BOARD WAVEFORM



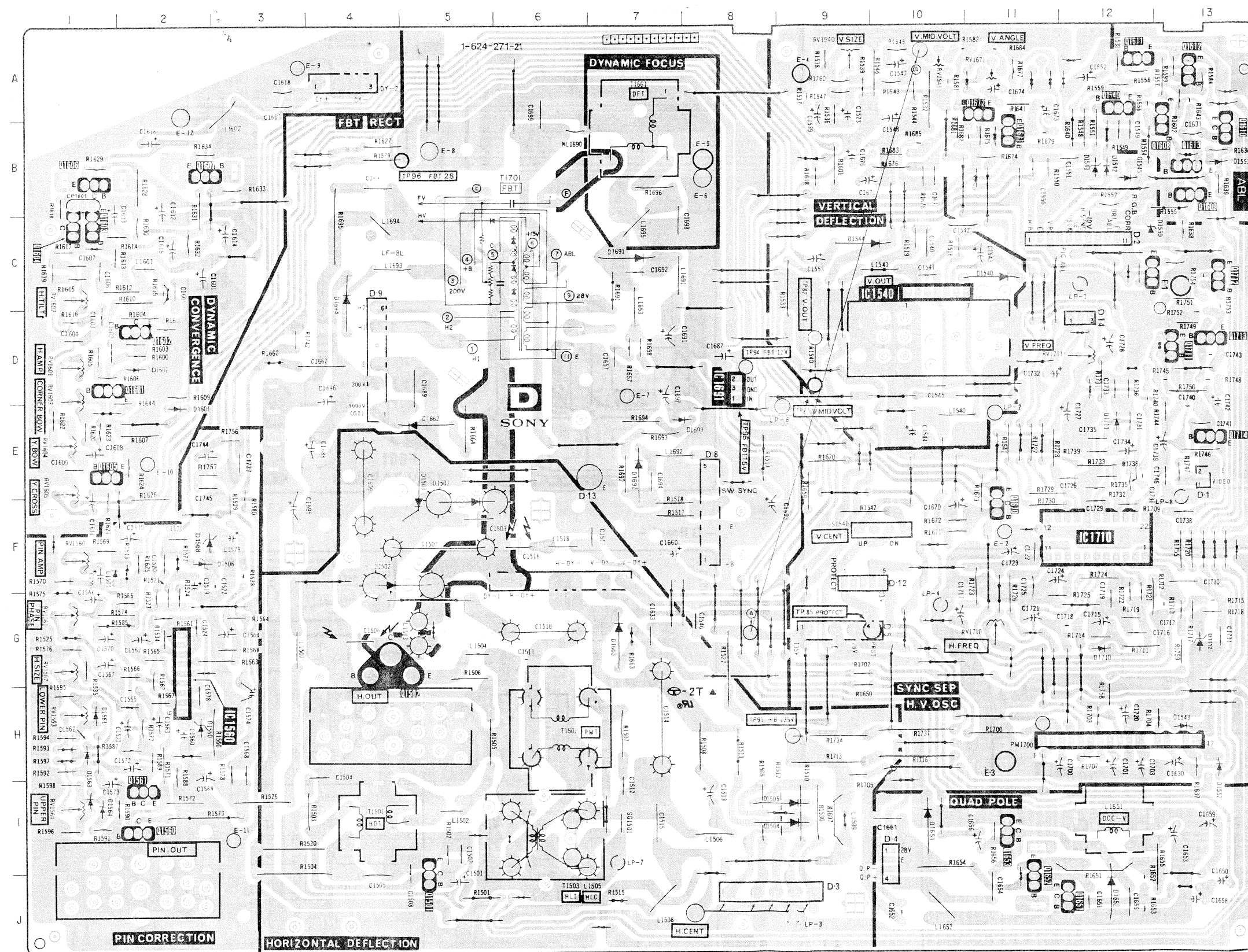
#### • D BOARD WAVEFORM





**D** [H. OUT, V. OUT, PROT MODULE]  
JUNGLE, PIN CORRECTION

— D Board — — Conductor Side —



IC		D1542	B-12
IC1540	C-10	D1543	H-13
IC1560	G-2	D1544	C-10
IC1691	D-8	D1545	B-12
IC1710	F-12	D1550	C-12
PM1700	H-12	D1552	H-13
		D1553	B-13
		D1560	H-2
		D1561	H-1
		D1562	H-1
TRANSISTOR		D1563	I-1
Q1501	J-5	D1564	I-1
Q1502	G-4	D1601	E-2
Q1540	A-12	D1602	D-2
Q1560	I-2	D1651	I-10
Q1561	I-2	D1652	J-12
Q1601	D-1	D1662	E-5
Q1602	D-2	D1663	G-7
Q1603	C-1	D1691	C-7
Q1604	C-1	D1692	E-7
Q1605	E-1	D1693	E-8
Q1606	B-1	D1694	C-4
Q1607	B-2	D1710	G-12
Q1608	B-13	D1711	E-12
Q1609	B-13	D1712	G-13
Q1610	B-13		
Q1611	A-12		
Q1612	A-13		
Q1613	B-13		
Q1651	J-12		
Q1652	J-11		
Q1653	I-11		
Q1670	F-11		
Q1671	B-11		
Q1672	A-11		
Q1711	D-13		
Q1712	C-13		
Q1713	D-13		
Q1714	E-13		
DIODE		VARIABLE RESISTOR	
D1501	F-5	RV1540	A-9
D1502	F-4	RV1541	A-10
D1503	F-5	RV1560	F-1
D1504	I-9	RV1560	G-1
D1505	I-9	RV1562	G-1
D1506	F-2	RV1563	H-1
D1507	F-1	RV1564	I-1
D1508	F-2	RV1601	D-1
D1540	C-11	RV1602	C-1
D1541	B-12	RV1603	D-1
		RV1604	E-1
		RV1605	E-1
		RV1671	A-11
		RV1710	G-11
		RV1711	D-12

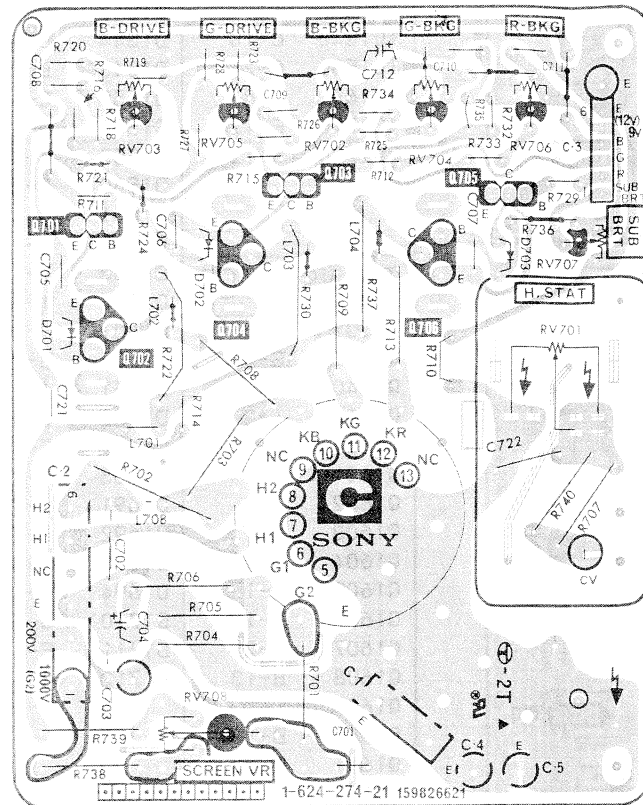
**C** [R·G·B OUT]

**U<sub>1</sub>** [ AVSW, Y/C  
SW CONTROL ]

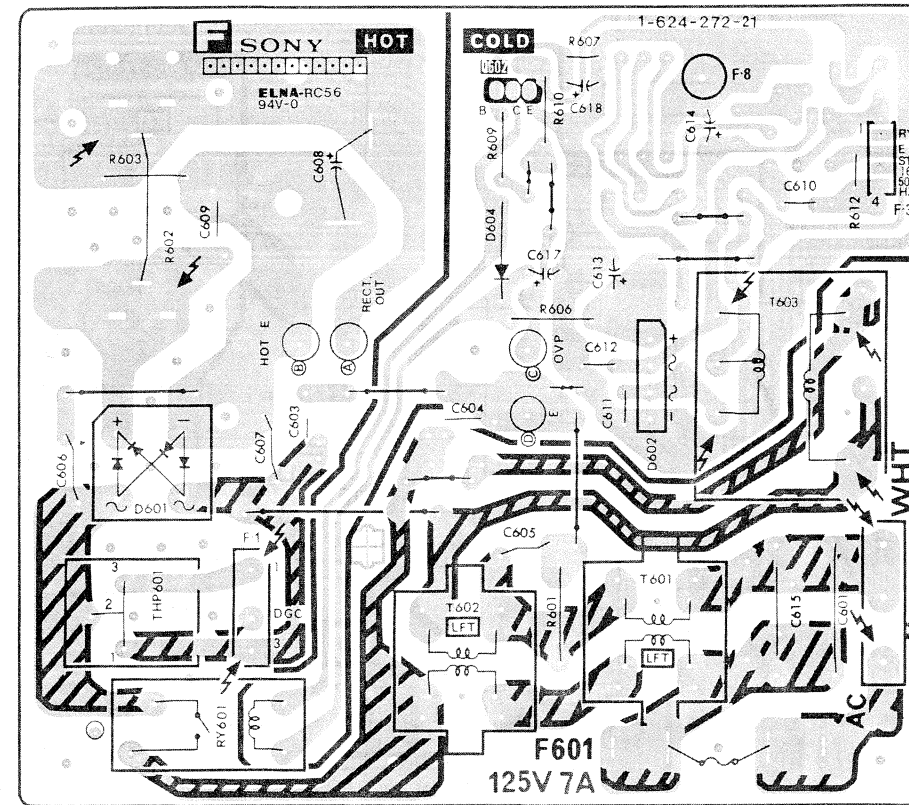
**F** [POWER]

**G** [POWER  
CONVERTOR]

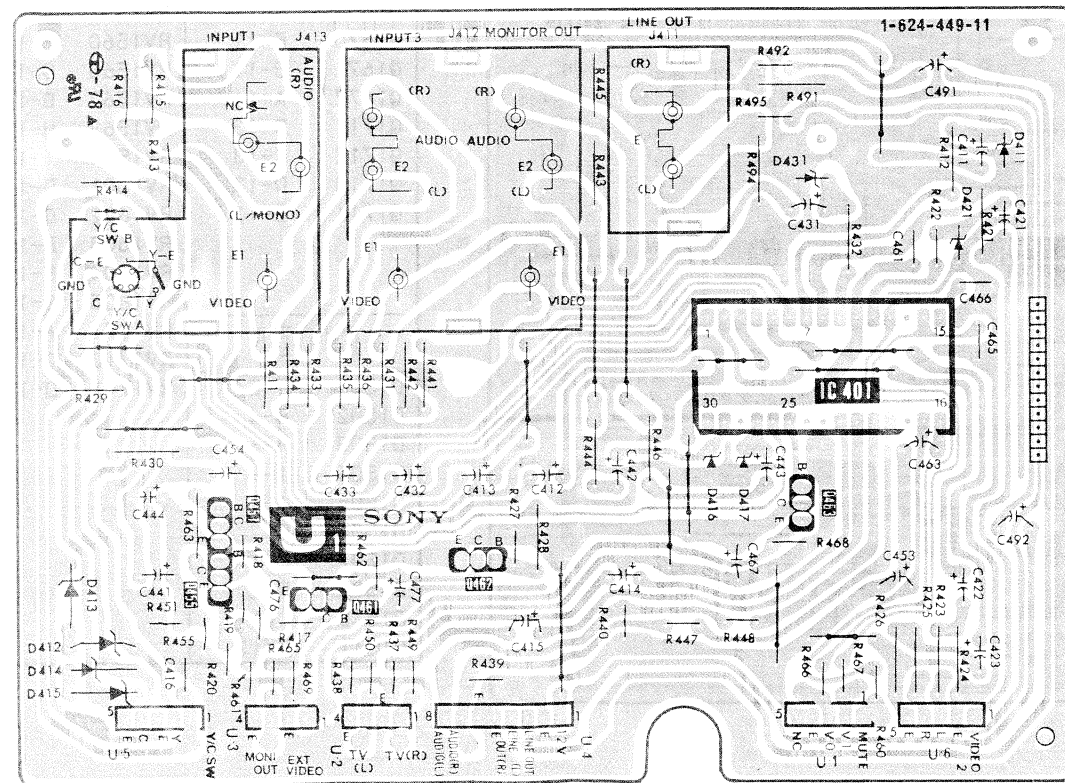
— C Board —



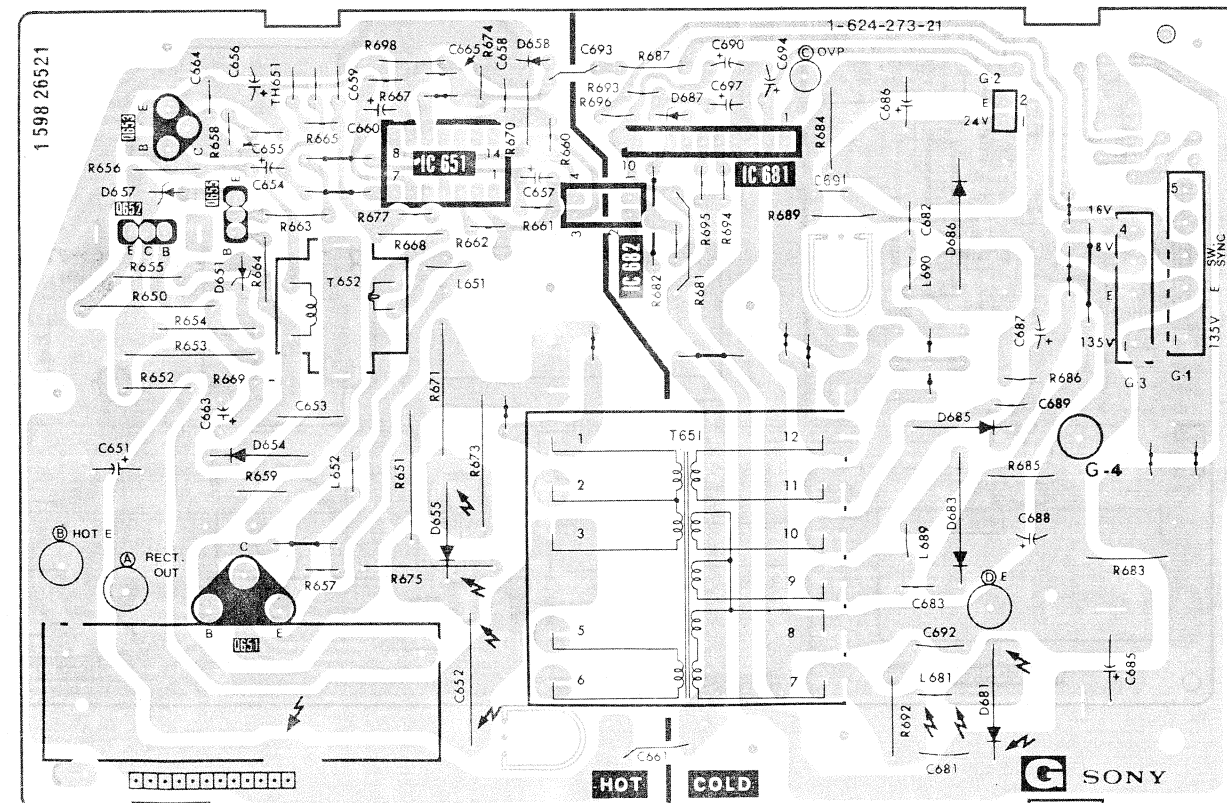
— F Board —



– U1 Board –



— G Board —



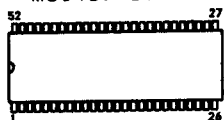


# 6-4. SEMICONDUCTORS

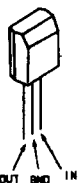
AN5521



M50439-614SP



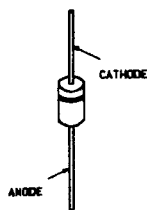
μPC78L12J



2SC2958  
2SD774



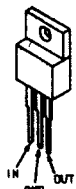
ERC06-15S  
ERC24-06S  
GP08D  
RH-1A  
SIB01-02  
SIB01-04



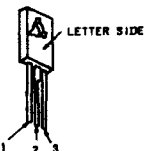
BX-1393



NJM7812FA



μPC78N05H



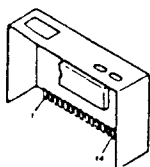
2SC3387  
2SD1941



ERC35-02  
ERD29-08J  
RU-4A-J1  
RU-4DS



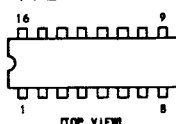
BX-1458



NJM78M93FD



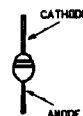
μPD4053BD  
μPD6326C



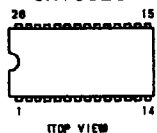
2SD1406



GU3A  
U05G  
V11N



CX10026



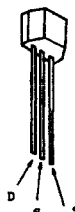
PC817C



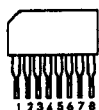
2SA1048  
2SA1115  
2SA2458  
2SC2603



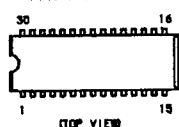
2SJ105



CX20069  
CX20925



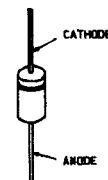
TA7717AP



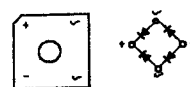
2SA1091  
2SC1740S  
2SC641K



10E-2  
ES-1F  
RD33E-B2  
RGP01-17  
RGP15G



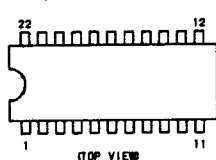
RB406NH



CX848



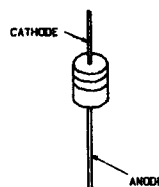
UPC1377C



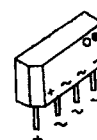
2SA1175  
2SC2785



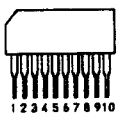
1SS119  
1SS133  
1SS148  
RD10ES-B1  
RD13ES-B  
RD18ES-B1  
RD20ES-B2  
RD24ES-B3  
RD33ES-B2  
RD33ES-B4  
RD4.3ES-B1  
RD5.6ES-B2  
RD5.6ES-B3  
RD6.8ES-B2



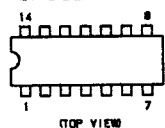
S1VB-10S  
S1VB-40



CXK-1004L



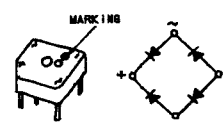
UPC1394C  
UPC324C



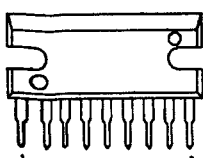
DM-36



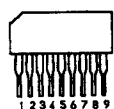
S3W60Z



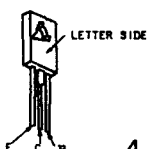
LA4270



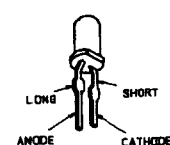
μPC4570HA



2SA1220A  
2SB772  
2SC2611  
2SC2688  
2SC2690A  
2SD882



TLR124



## SECTION 7

### EXPLODED VIEWS

**NOTE:**

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

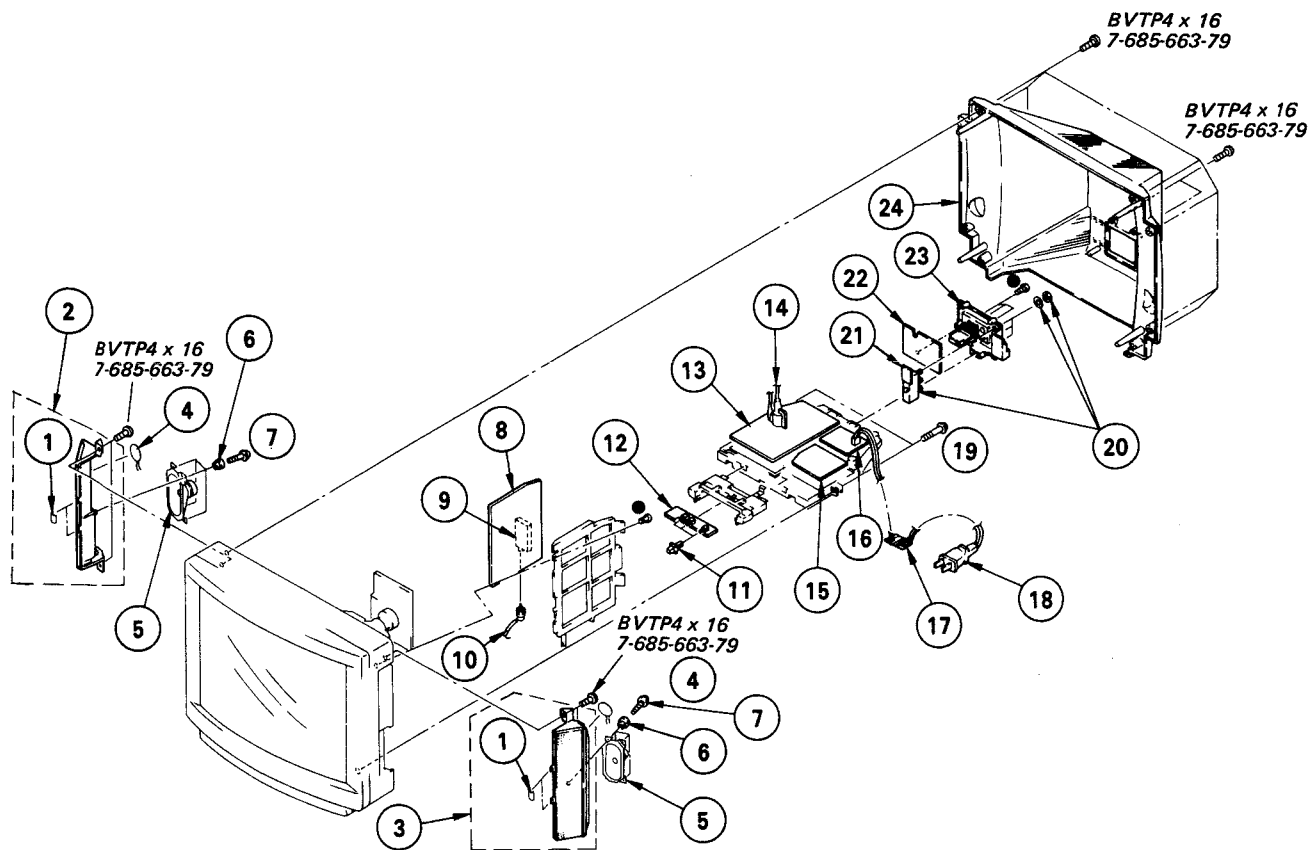
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark **▲** are critical for safety. Replace only with part number specified.

#### 7-1. REAR COVER

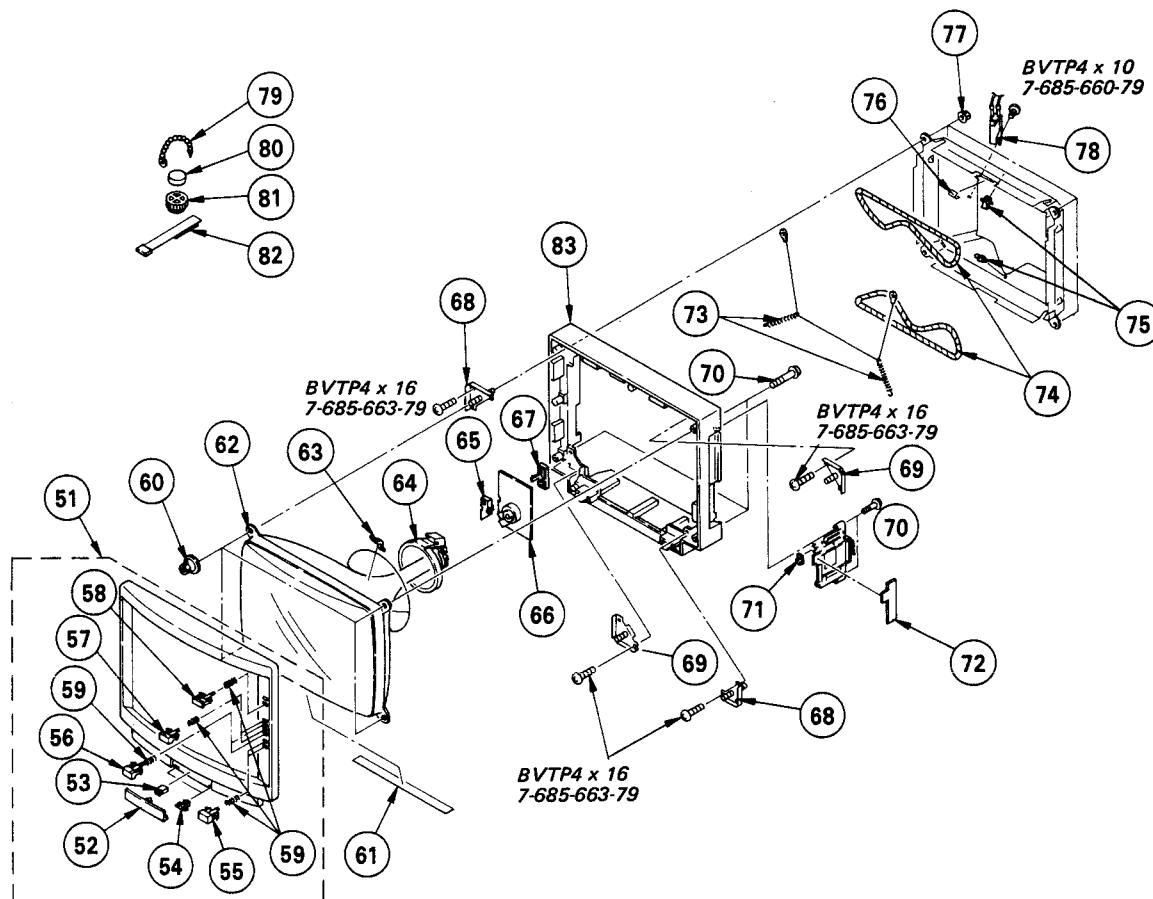
●: BVTP3 x 12 7-685-648-79

Les composants identifiés par une trame et une marque **▲** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
1	3-831-441-XX	CUSHION (A)		14	▲1-439-416-31	TRANSFORMER ASSY, FLYBACK	
2	X-4388-413-1	PANEL (LEFT) ASSY, SP	1	15	*A-1316-076-A	G BOARD, COMPLETE	
3	X-4388-412-1	PANEL (RIGHT) ASSY, SP	1	16	*A-1245-424-A	F BOARD, COMPLETE (USA ONLY)	
4	1-529-062-11	BUZZER			*A-1245-430-A	F BOARD, COMPLETE (CANADIAN ONLY)	
5	1-503-914-11	SPEAKER		17	▲4-388-328-01	GROMMET, AC CORD	
6	*4-379-189-01	CUSHION, SPEAKER		18	▲1-559-396-11	CORD, POWER	
7	4-379-192-01	SCREW, TAPPING, STEP		19	4-319-520-11	SCREW, SPECIAL (+PW4X30)	
8	*A-1296-392-A	A BOARD, COMPLETE		20	▲1-417-125-16	SELECTOR, ANTENNA	
9	▲1-463-771-11	TUNER, ET (BTP-201A)		21	*1-624-448-11	U2 BOARD	
10	*1-558-745-11	CABLE, P-P		22	*A-1394-130-A	U1 BOARD, COMPLETE	
11	4-383-174-01	BUTTON, SWITCH		23	4-388-330-01	TERMINAL BOARD, ANTENNA	
12	*1-624-444-11	M1 BOARD		24	4-388-444-01	COVER, REAR (US ONLY)	
13	*A-1345-757-A	D BOARD, COMPLETE			4-388-444-11	COVER, REAR (CND ONLY)	

## 7-2. PICTURE TUBE



No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
51	X-4388-414-1	BEZEL ASSY (FOR MARBLE BLACK)	52-59	67	*4-379-160-01	COVER (REAR LID), CV	
52	X-4388-414-2	BEZEL ASSY (FOR STONE)(USA ONLY)	52-59	68	*4-379-197-01	BRACKET (H), CRT	
53	4-388-441-01	DOOR, CONTROL		69	*4-376-989-01	BRACKET (E), CRT	
54	4-386-710-01	CATCHER, PUSH		70	4-319-520-11	SCREW, SPECIAL (+PW4X30)	
55	3-703-035-11	SHAFT, LID		71	*1-624-446-11	M3 BOARD	
56	4-383-187-01	BUTTON, SELECTION		72	*1-624-445-11	M2 BOARD	
57	4-383-186-01	BUTTON, MINUS		73	4-369-318-00	SPRING, TENSION	
58	4-383-185-01	BUTTON, PLUS		74	△ 1-426-350-21	COIL, DEMAGNETIZATION	
59	4-388-327-01	BUTTON, POWER		75	*4-371-629-01	STOPPER, WIRE	
60	3-571-847-00	SPRING, COMPRESSION		76	3-831-441-XX	CUSHION (A)	
61	4-376-980-01	NUT, SPECIAL, CRT		77	4-306-034-00	FLANGE NUT, (B) 5MM	
62	4-370-595-01	CLOTH, BLOTTER		78	△ 1-230-940-21	RESISTOR ASSY, HIGH-VOLTAGE	
63	△ 8-737-753-05	PICTURE TUBE (A68JMT50X)		79	4-308-870-00	CLIP, LEAD WIRE	
64	3-703-961-01	SPACER, DY		80	1-452-032-00	MAGNET, DISK; 10MM ∅	
65	△ 1-451-275-11	DEFLECTION YOKE (SY-158)		81	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ∅	
66	*4-379-167-01	COVER (MAIN), CV		82	X-4306-312-0	PERMALLOY ASSY, CONVERGENCE	
	*A-1330-862-A	C BOARD, COMPLETE		83	4-388-443-01	CABINET (FOR MARBLE BLACK)	
					4-388-443-11	CABINET (FOR STONE) (USA ONLY)	
				84	*4-378-067-01	CUSHION, CRT	

Les composants identifiés par une trame et une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark △ are critical for safety. Replace only with part number specified.

SECTION 8  
ELECTRICAL PARTS LIST

F

A

## NOTE:

The components identified by shading and mark **A** are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

• Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

## RESISTORS

• All resistors are in ohms  
• F : nonflammable

When indicating parts by reference number, please include the board name.

## CAPACITORS

• MF :  $\mu$ F, PF :  $\mu$ F

## COILS


• MMH : mH, UH :  $\mu$ H

• The components identified by **A** in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
*A-1245-424-A	F BOARD, COMPLETE (USA ONLY)	*****					
*A-1245-430-A	F BOARD, COMPLETE (CANADIAN ONLY)	*****					
CAPACITOR				RELAY			
C601	<b>A</b> 1-136-311-71	FILM	0.47MF 20% 125V	RY601	<b>A</b> 1-515-601-11	RELAY	
C605	<b>A</b> 1-161-741-51	CERAMIC	0.001MF 10% 400V	TRANSFORMER			
C606	<b>A</b> 1-161-953-51	CERAMIC	0.0047MF 20% 400V	T601	<b>A</b> 1-421-599-11	TRANSFORMER, LINE FILTER (USA ONLY)	
C607	<b>A</b> 1-161-953-51	CERAMIC	0.0047MF 20% 400V	T602	<b>A</b> 1-424-022-11	TRANSFORMER, LINE FILTER (CND ONLY)	
C608	1-125-215-00	ELECT(BLOCK)	560MF 200V	T603	<b>A</b> 1-448-793-11	TRANSFORMER, POWER	
C610	1-106-220-00	MYLAR	0.1MF 10% 100V	THERMISTOR			
C611	1-102-125-00	CERAMIC	0.0047MF 10% 50V	THP601	<b>A</b> 1-808-081-11	THERMISTOR, POSITIVE	
C612	1-102-125-00	CERAMIC	0.0047MF 10% 50V	*****			
C613	1-124-479-11	ELECT	330MF 20% 25V	*A-1296-392-A	A BOARD, COMPLETE	*****	
C614	1-123-875-11	ELECT	10MF 20% 50V	CONNECTOR			
C617	1-124-120-11	ELECT	220MF 20% 25V	A1	*1-566-056-11	PIN, CONNECTOR 4P	
C618	1-124-963-11	ELECT	33MF 20% 16V	A2	*1-566-063-11	PIN, CONNECTOR 11P	
DIODE				A3	*1-508-766-00	4P PLUG (M)	
D601	<b>A</b> 8-719-300-07	DIODE RB406N		A4	*1-566-057-11	PIN, CONNECTOR 5P	
D602	8-719-511-40	DIODE 1SV840		A5	*1-566-054-11	PIN, CONNECTOR 2P	
D604	8-719-200-02	DIODE 10E2		A6	*1-566-056-11	PIN, CONNECTOR 4P	
CONNECTOR				A7	*1-566-060-11	PIN, CONNECTOR 8P	
F1	*1-508-765-00	3P PLUG (M)		A8	*1-566-056-11	PIN, CONNECTOR 4P	
F3	*1-566-056-11	PIN, CONNECTOR 4P		A9	*1-566-054-11	PIN, CONNECTOR 2P	
F6	*1-506-348-XX	3P PLUG (L)		A10	*1-566-054-11	PIN, CONNECTOR 2P	
FUSE				A11	*1-566-054-11	PIN, CONNECTOR 2P	
F601	<b>A</b> 1-532-627-11	FUSE, GLASS TUBE 7A/125V		A12	*1-566-056-11	PIN, CONNECTOR 4P	
	1-533-190-11	CLIP, FUSE; F601		A13	*1-566-060-11	PIN, CONNECTOR 8P	
TRANSISTOR				A14	*1-566-064-11	PIN, CONNECTOR 12P	
Q602	8-729-178-54	TRANSISTOR 2SC2785		A15	*1-566-058-11	PIN, CONNECTOR 6P	
RESISTOR				A16	*1-566-058-11	PIN, CONNECTOR 6P	
R601	<b>A</b> 1-202-723-51	SOLID	2.2M 10% 1/2W	A17	*1-566-057-11	PIN, CONNECTOR 5P	
R602	<b>A</b> 1-205-900-11	WIREWOUND	1.2 5% 15W F	A18	*1-566-055-11	PIN, CONNECTOR 3P	
R603	1-216-444-11	METAL OXIDE	82K 5% 1W F	A22	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P	
R606	1-215-863-11	METAL OXIDE	100 5% 1W F	A23	*1-560-125-00	PLUG, CONNECTOR (2.5MM) 5P	
R607	1-249-421-11	CARBON	2.2K 5% 1/4W	MODULE			
R609	1-247-713-11	CARBON	1K 5% 1/4W	AM301	1-236-149-11	MODULE, APERTURE CONTROL	
R610	1-247-711-11	CARBON	680 5% 1/4W	NM301	1-236-150-11	MODULE, NEW DYNAMIC COLOR	
R612	1-249-440-11	CARBON	82K 5% 1/4W	CAPACITOR			
				C101	1-123-875-11	ELECT	10MF 20% 50V
				C102	1-124-908-11	ELECT	22MF 20% 25V
				C103	1-124-556-11	ELECT	2200MF 20% 16V
				C104	1-124-444-00	ELECT	220MF 20% 10V

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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C106	1-119-160-00	ELECT	470MF	C309	1-102-971-00	CERAMIC	82PF
C109	1-124-925-11	ELECT	2.2MF	C310	1-124-908-11	ELECT	22MF
C110	1-124-927-11	ELECT	4.7MF	C311	1-102-125-00	CERAMIC	0.0047MF
C111	1-124-499-11	ELECT	1MF	C312	1-124-464-11	ELECT	0.22MF
C112	1-124-499-11	ELECT	1MF	C313	1-124-464-11	ELECT	0.22MF
C113	1-124-499-11	ELECT	1MF	C315	1-123-875-11	ELECT	10MF
C114	1-123-875-11	ELECT	10MF	C317	1-102-945-00	CERAMIC	8PF
C115	1-102-953-00	CERAMIC	18PF	C318	1-102-074-00	CERAMIC	0.001MF
C116	1-130-483-00	MYLAR	0.01MF	C319	1-124-902-00	ELECT	0.47MF
C117	1-124-499-11	ELECT	1MF	C320	1-124-284-00	ELECT	10MF
C118	1-130-483-00	MYLAR	0.01MF	C321	1-124-902-00	ELECT	0.47MF
C119	1-124-499-11	ELECT	1MF	C322	1-124-252-00	ELECT	0.33MF
C120	1-124-499-11	ELECT	1MF	C323	1-124-963-11	ELECT	33MF
C122	1-123-875-11	ELECT	10MF	C324	1-124-963-11	ELECT	33MF
C123	1-123-875-11	ELECT	10MF	C326	1-124-925-11	ELECT	2.2MF
C124	1-124-499-11	ELECT	1MF	C327	1-124-499-11	ELECT	1MF
C126	1-101-006-00	CERAMIC	0.047MF	C329	1-130-475-00	MYLAR	0.0022MF
C127	1-102-963-00	CERAMIC	33PF	C330	1-130-473-00	MYLAR	0.0015MF
C128	1-102-965-00	CERAMIC	39PF	C331	1-124-443-00	ELECT	100MF
C129	1-102-125-00	CERAMIC	0.0047MF	C332	1-124-443-00	ELECT	100MF
C130	1-124-477-11	ELECT	47MF	C336	1-124-477-11	ELECT	47MF
C131	1-123-875-11	ELECT	10MF	C337	1-124-499-11	ELECT	1MF
C132	1-102-965-00	CERAMIC	39PF	C339	1-123-875-11	ELECT	10MF
C133	1-102-964-00	CERAMIC	36PF	C340	1-130-477-00	MYLAR	0.0033MF
C135	1-102-127-00	CERAMIC	0.0068MF	C341	1-102-858-00	CERAMIC	10PF
C136	1-124-499-11	ELECT	1MF	C361	1-123-875-11	ELECT	10MF
C137	1-124-499-11	ELECT	1MF	C362	1-101-884-00	CERAMIC	56PF
C138	1-124-472-11	ELECT	470MF	C363	1-124-499-11	ELECT	1MF
C139	1-124-477-11	ELECT	47MF	C364	1-101-880-00	CERAMIC	47PF
C140	1-102-121-00	CERAMIC	0.0022MF	C365	1-124-499-11	ELECT	1MF
C141	1-124-925-11	ELECT	2.2MF	C366	1-101-888-00	CERAMIC	68PF
C142	1-126-101-11	ELECT	100MF	C367	1-102-961-00	CERAMIC	27PF
C144	1-130-483-00	MYLAR	0.01MF	C368	1-124-963-11	ELECT	33MF
C145	1-101-005-00	CERAMIC	0.022MF	C369	1-124-499-11	ELECT	1MF
C146	1-123-875-11	ELECT	10MF	C370	1-124-443-00	ELECT	100MF
C147	1-102-121-00	CERAMIC	0.0022MF	C371	1-102-114-00	CERAMIC	470PF
C148	1-124-963-11	ELECT	33MF	C372	1-102-114-00	CERAMIC	470PF
C149	1-124-645-11	ELECT	10MF	C373	1-102-114-00	CERAMIC	470PF
C150	1-124-477-11	ELECT	47MF	C390	1-123-875-11	ELECT	10MF
C153	1-123-875-11	ELECT	10MF	C391	1-130-483-00	MYLAR	0.01MF
C155	1-124-477-11	ELECT	47MF	C801	1-124-963-11	ELECT	33MF
C156	1-102-949-00	CERAMIC	12PF	C802	1-126-101-11	ELECT	100MF
C157	1-102-949-00	CERAMIC	12PF	C803	1-102-963-00	CERAMIC	33PF
C159	1-123-875-11	ELECT	10MF	C804	1-102-963-00	CERAMIC	33PF
C160	1-124-477-11	ELECT	47MF	C805	1-130-479-00	MYLAR	0.0047MF
C162	1-124-482-11	ELECT	33MF	C806	1-130-479-00	MYLAR	0.0047MF
C163	1-101-005-00	CERAMIC	0.022MF	C807	1-102-963-00	CERAMIC	33PF
C201	1-126-101-11	ELECT	100MF	C808	1-124-284-00	ELECT	10MF
C202	1-124-477-11	ELECT	47MF	C809	1-124-284-00	ELECT	10MF
C203	1-124-631-11	ELECT	47MF	C814	1-124-477-11	ELECT	47MF
C204	1-102-121-00	CERAMIC	0.0022MF	C820	1-124-927-11	ELECT	4.7MF
C205	1-124-477-11	ELECT	47MF	C821	1-124-478-11	ELECT	100MF
C206	1-124-499-11	ELECT	1MF	C822	1-124-927-11	ELECT	4.7MF
C211	1-124-477-11	ELECT	47MF	C823	1-130-489-00	MYLAR	0.033MF
C212	1-102-074-00	CERAMIC	0.001MF	C824	1-124-120-11	ELECT	220MF
C214	1-123-875-11	ELECT	10MF	C825	1-124-927-11	ELECT	4.7MF
C215	1-123-875-11	ELECT	10MF	C826	1-124-927-11	ELECT	4.7MF
C301	1-126-101-11	ELECT	100MF	C827	1-130-489-00	MYLAR	0.033MF
C302	1-126-103-11	ELECT	470MF	C828	1-124-478-11	ELECT	100MF
C303	1-126-101-11	ELECT	100MF	C829	1-130-495-00	MYLAR	0.1MF
C304	1-124-963-11	ELECT	33MF	C830	1-124-618-11	ELECT	2200MF
C305	1-124-499-11	ELECT	1MF	C831	1-124-618-11	ELECT	2200MF
C306	1-123-875-11	ELECT	10MF	C832	1-124-618-11	ELECT	2200MF
C307	1-124-927-11	ELECT	4.7MF	C833	1-130-495-00	MYLAR	0.1MF
C308	1-102-129-00	CERAMIC	0.01MF	C834	1-123-875-11	ELECT	10MF

The components identified by shading and mark  are critical for safety.  
Replace only with part number specified.

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The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

**KV-27SXR10**  
RM-755

**A**

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
Q306	8-729-178-54	TRANSISTOR 2SC2785		R038	1-249-433-11	CARBON 22K 5%	1/4W
Q307	8-729-178-54	TRANSISTOR 2SC2785		R039	1-249-414-11	CARBON 560 5%	1/4W
Q311	8-729-117-54	TRANSISTOR 2SA1175		R040	1-249-431-11	CARBON 15K 5%	1/4W
Q313	8-729-117-54	TRANSISTOR 2SA1175		R041	1-249-414-11	CARBON 560 5%	1/4W
Q361	8-729-178-54	TRANSISTOR 2SC2785		R044	1-249-414-11	CARBON 560 5%	1/4W
Q362	8-729-178-54	TRANSISTOR 2SC2785		R101	1-247-722-11	CARBON 5.6K 5%	1/4W
Q363	8-729-178-54	TRANSISTOR 2SC2785		R102	1-247-713-11	CARBON 1K 5%	1/4W
Q364	8-729-178-54	TRANSISTOR 2SC2785		R103	1-215-923-00	METAL OXIDE 10K 5%	3W F
Q365	8-729-178-54	TRANSISTOR 2SC2785		R104	1-249-435-11	CARBON 33K 5%	1/4W
Q366	8-729-178-54	TRANSISTOR 2SC2785		R105	1-249-439-11	CARBON 68K 5%	1/4W
Q367	8-729-178-54	TRANSISTOR 2SC2785		R106	1-249-393-11	CARBON 10 5%	1/4W F
Q368	8-729-178-54	TRANSISTOR 2SC2785		R107	1-249-467-11	CARBON 68K 5%	1/4W
Q369	8-729-178-54	TRANSISTOR 2SC2785		R108	1-249-435-11	CARBON 33K 5%	1/4W
Q391	8-729-178-54	TRANSISTOR 2SC2785		R113	1-249-416-11	CARBON 820 5%	1/4W
Q392	8-729-178-54	TRANSISTOR 2SC2785		R114	1-249-429-11	CARBON 10K 5%	1/4W
Q801	8-729-207-35	TRANSISTOR 2SJ105-Y		R115	1-249-421-11	CARBON 2.2K 5%	1/4W
Q1401	8-729-178-54	TRANSISTOR 2SC2785		R116	1-249-421-11	CARBON 2.2K 5%	1/4W
Q1402	8-729-178-54	TRANSISTOR 2SC2785		R117	1-247-717-11	CARBON 2.2K 5%	1/4W
Q1403	8-729-178-54	TRANSISTOR 2SC2785		R118	1-249-433-11	CARBON 22K 5%	1/4W
Q1404	8-729-178-54	TRANSISTOR 2SC2785		R119	1-249-417-11	CARBON 1K 5%	1/4W
Q1405	8-729-178-54	TRANSISTOR 2SC2785		R120	1-249-437-11	CARBON 47K 5%	1/4W
Q1406	8-729-178-54	TRANSISTOR 2SC2785		R121	1-249-434-11	CARBON 27K 5%	1/4W
Q1407	8-729-178-54	TRANSISTOR 2SC2785		R122	1-247-725-11	CARBON 10K 5%	1/4W
Q1408	8-729-178-54	TRANSISTOR 2SC2785		R123	1-247-705-11	CARBON 270 5%	1/4W
Q1409	8-729-178-54	TRANSISTOR 2SC2785		R124	1-249-417-11	CARBON 1K 5%	1/4W
RESISTOR				R125	1-249-417-11	CARBON 1K 5%	1/4W
R001	1-249-421-11	CARBON 2.2K 5%	1/4W	R126	1-249-429-11	CARBON 10K 5%	1/4W
R002	1-249-425-11	CARBON 4.7K 5%	1/4W	R127	1-249-417-11	CARBON 1K 5%	1/4W
R003	1-249-414-11	CARBON 560 5%	1/4W	R128	1-247-713-11	CARBON 1K 5%	1/4W
R004	1-249-414-11	CARBON 560 5%	1/4W	R130	1-249-433-11	CARBON 22K 5%	1/4W
R005	1-249-414-11	CARBON 560 5%	1/4W	R131	1-249-421-11	CARBON 2.2K 5%	1/4W
R006	1-249-414-11	CARBON 560 5%	1/4W	R133	1-249-429-11	CARBON 10K 5%	1/4W
R007	1-249-414-11	CARBON 560 5%	1/4W	R136	1-247-700-11	CARBON 100 5%	1/4W
R008	1-249-414-11	CARBON 560 5%	1/4W	R137	1-249-437-11	CARBON 47K 5%	1/4W
R009	1-249-414-11	CARBON 560 5%	1/4W	R139	1-249-417-11	CARBON 1K 5%	1/4W
R010	1-249-414-11	CARBON 560 5%	1/4W	R140	1-249-417-11	CARBON 1K 5%	1/4W
R011	1-249-414-11	CARBON 560 5%	1/4W	R141	1-249-417-11	CARBON 1K 5%	1/4W
R012	1-249-414-11	CARBON 560 5%	1/4W	R142	1-249-429-11	CARBON 10K 5%	1/4W
R013	1-249-414-11	CARBON 560 5%	1/4W	R143	1-249-429-11	CARBON 10K 5%	1/4W
R014	1-247-717-11	CARBON 2.2K 5%	1/4W	R145	1-249-414-11	CARBON 560 5%	1/4W
R015	1-247-717-11	CARBON 2.2K 5%	1/4W	R146	1-249-417-11	CARBON 1K 5%	1/4W
R016	1-249-421-11	CARBON 2.2K 5%	1/4W	R147	1-249-416-11	CARBON 820 5%	1/4W
R017	1-247-717-11	CARBON 2.2K 5%	1/4W	R148	1-249-432-11	CARBON 18K 5%	1/4W
R018	1-249-416-11	CARBON 820 5%	1/4W	R149	1-249-423-11	CARBON 3.3K 5%	1/4W
R019	1-249-429-11	CARBON 10K 5%	1/4W	R150	$\Delta$ 1-249-465-91	CARBON 47K 5%	1/4W F
R020	1-249-429-11	CARBON 10K 5%	1/4W	R151	$\Delta$ 1-247-725-81	CARBON 10K 5%	1/4W F
R021	1-249-434-11	CARBON 27K 5%	1/4W	R152	1-249-433-11	CARBON 22K 5%	1/4W
R022	1-249-414-11	CARBON 560 5%	1/4W	R153	1-249-426-11	CARBON 5.6K 5%	1/4W
R023	1-249-414-11	CARBON 560 5%	1/4W	R154	1-247-895-00	CARBON 470K 5%	1/4W
R024	1-249-421-11	CARBON 2.2K 5%	1/4W	R155	1-249-439-11	CARBON 68K 5%	1/4W
R025	1-249-421-11	CARBON 2.2K 5%	1/4W	R156	1-249-424-11	CARBON 3.9K 5%	1/4W
R026	1-249-421-11	CARBON 2.2K 5%	1/4W	R158	1-247-895-00	CARBON 470K 5%	1/4W
R027	1-249-421-11	CARBON 2.2K 5%	1/4W	R160	1-249-439-11	CARBON 68K 5%	1/4W
R028	1-249-423-11	CARBON 3.3K 5%	1/4W	R161	1-249-424-11	CARBON 3.9K 5%	1/4W
R029	1-249-425-11	CARBON 4.7K 5%	1/4W	R162	1-249-421-11	CARBON 2.2K 5%	1/4W
R030	1-249-425-11	CARBON 4.7K 5%	1/4W	R163	1-249-426-11	CARBON 5.6K 5%	1/4W
R031	1-249-414-11	CARBON 560 5%	1/4W	R166	1-249-429-11	CARBON 10K 5%	1/4W
R032	1-249-414-11	CARBON 560 5%	1/4W	R172	1-249-434-11	CARBON 27K 5%	1/4W
R033	1-249-421-11	CARBON 2.2K 5%	1/4W	R173	1-249-436-11	CARBON 39K 5%	1/4W
R034	1-249-426-11	CARBON 5.6K 5%	1/4W	R174	1-249-423-11	CARBON 3.3K 5%	1/4W
R035	1-249-417-11	CARBON 1K 5%	1/4W	R175	1-249-429-11	CARBON 10K 5%	1/4W
R036	1-249-416-11	CARBON 820 5%	1/4W	R178	1-249-405-11	CARBON 100 5%	1/4W
R037	1-249-416-11	CARBON 820 5%	1/4W	R179	1-249-405-11	CARBON 100 5%	1/4W
				R180	1-249-433-11	CARBON 22K 5%	1/4W
				R181	1-247-712-11	CARBON 820 5%	1/4W

**A**

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R182	1-249-415-11	CARBON	680 5% 1/4W	R337	1-247-895-00	CARBON	470K 5% 1/4W
R183	1-249-416-11	CARBON	820 5% 1/4W	R338	1-215-487-00	CARBON	560K 5% 1/4W
R184	1-215-493-00	CARBON	1M 5% 1/4W	R339	1-249-411-11	CARBON	330 5% 1/4W
R185	1-249-429-11	CARBON	10K 5% 1/4W	R340	1-249-437-11	CARBON	47K 5% 1/4W
R186	1-249-429-11	CARBON	10K 5% 1/4W	R341	1-249-430-11	CARBON	12K 5% 1/4W
R187	1-216-393-00	METAL OXIDE	2.2 5% 3W F	R342	1-249-417-11	CARBON	1K 5% 1/4W
R191	1-249-417-11	CARBON	1K 5% 1/4W	R343	1-249-418-11	CARBON	1.2K 5% 1/4W
R204	1-249-435-11	CARBON	33K 5% 1/4W	R344	1-249-412-11	CARBON	390 5% 1/4W
R205	1-247-715-11	CARBON	1.5K 5% 1/4W	R346	1-249-437-11	CARBON	47K 5% 1/4W
R206	1-249-425-11	CARBON	4.7K 5% 1/4W	R347	1-249-421-11	CARBON	2.2K 5% 1/4W
R207	1-249-435-11	CARBON	33K 5% 1/4W	R348	1-249-420-11	CARBON	1.8K 5% 1/4W
R208	1-249-411-11	CARBON	330 5% 1/4W	R349	1-249-417-11	CARBON	1K 5% 1/4W
R213	1-249-411-11	CARBON	330 5% 1/4W	R350	1-249-405-11	CARBON	100 5% 1/4W
R214	1-249-411-11	CARBON	330 5% 1/4W	R351	1-249-420-11	CARBON	1.8K 5% 1/4W
R215	1-249-405-11	CARBON	100 5% 1/4W	R352	1-249-429-11	CARBON	10K 5% 1/4W
R217	1-249-417-11	CARBON	1K 5% 1/4W	R353	1-249-411-11	CARBON	330 5% 1/4W
R219	1-249-405-11	CARBON	100 5% 1/4W	R355	1-249-409-11	CARBON	220 5% 1/4W
R221	1-249-413-11	CARBON	470 5% 1/4W	R356	1-247-883-00	CARBON	150K 5% 1/4W
R222	1-247-700-11	CARBON	100 5% 1/4W	R357	1-215-493-00	CARBON	1M 5% 1/4W
R223	1-249-438-11	CARBON	56K 5% 1/4W	R358	1-249-440-11	CARBON	82K 5% 1/4W
R224	1-249-433-11	CARBON	22K 5% 1/4W	R359	1-249-405-11	CARBON	100 5% 1/4W
R225	1-249-438-11	CARBON	56K 5% 1/4W	R360	1-249-429-11	CARBON	10K 5% 1/4W
R226	1-249-433-11	CARBON	22K 5% 1/4W	R361	1-249-435-11	CARBON	33K 5% 1/4W
R230	1-247-706-11	CARBON	330 5% 1/4W	R362	1-249-434-11	CARBON	27K 5% 1/4W
R231	1-249-437-11	CARBON	47K 5% 1/4W	R363	1-249-418-11	CARBON	1.2K 5% 1/4W
R232	1-247-706-11	CARBON	330 5% 1/4W	R364	1-249-413-11	CARBON	470 5% 1/4W
R233	1-249-411-11	CARBON	330 5% 1/4W	R365	1-249-418-11	CARBON	1.2K 5% 1/4W
R234	1-249-411-11	CARBON	330 5% 1/4W	R366	1-249-415-11	CARBON	680 5% 1/4W
R240	1-249-425-11	CARBON	4.7K 5% 1/4W	R367	1-249-419-11	CARBON	1.5K 5% 1/4W
R242	1-249-469-11	CARBON	100K 5% 1/4W	R368	1-247-708-11	CARBON	470 5% 1/4W
R296	1-249-417-11	CARBON	1K 5% 1/4W	R369	1-249-415-11	CARBON	680 5% 1/4W
R302	1-249-417-11	CARBON	1K 5% 1/4W	R370	1-249-415-11	CARBON	680 5% 1/4W
R303	1-249-431-11	CARBON	15K 5% 1/4W	R371	1-249-415-11	CARBON	680 5% 1/4W
R304	1-249-421-11	CARBON	2.2K 5% 1/4W	R372	1-249-419-11	CARBON	1.5K 5% 1/4W
R305	1-249-429-11	CARBON	10K 5% 1/4W	R373	1-249-418-11	CARBON	1.2K 5% 1/4W
R306	1-249-429-11	CARBON	10K 5% 1/4W	R374	1-249-419-11	CARBON	1.5K 5% 1/4W
R307	1-215-489-00	CARBON	680K 5% 1/4W	R375	1-249-418-11	CARBON	1.2K 5% 1/4W
R308	1-247-891-00	CARBON	330K 5% 1/4W	R376	1-249-415-11	CARBON	680 5% 1/4W
R310	1-247-721-11	CARBON	4.7K 5% 1/4W	R377	1-249-413-11	CARBON	470 5% 1/4W
R311	1-249-409-11	CARBON	220 5% 1/4W	R378	1-249-415-11	CARBON	680 5% 1/4W
R312	1-249-409-11	CARBON	220 5% 1/4W	R379	1-249-418-11	CARBON	1.2K 5% 1/4W
R313	1-249-409-11	CARBON	220 5% 1/4W	R380	1-249-411-11	CARBON	330 5% 1/4W
R314	1-247-706-11	CARBON	330 5% 1/4W	R381	1-249-418-11	CARBON	1.2K 5% 1/4W
R315	1-247-706-11	CARBON	330 5% 1/4W	R382	1-249-425-11	CARBON	4.7K 5% 1/4W
R316	1-247-706-11	CARBON	330 5% 1/4W	R383	1-249-422-11	CARBON	2.7K 5% 1/4W
R317	1-249-417-11	CARBON	1K 5% 1/4W	R384	1-249-420-11	CARBON	1.8K 5% 1/4W
R318	1-249-422-11	CARBON	2.7K 5% 1/4W	R385	1-247-891-00	CARBON	330K 5% 1/4W
R319	1-249-422-11	CARBON	2.7K 5% 1/4W	R386	1-249-407-11	CARBON	150 5% 1/4W
R320	1-249-422-11	CARBON	2.7K 5% 1/4W	R387	1-249-407-11	CARBON	150 5% 1/4W
R321	1-215-489-00	CARBON	680K 5% 1/4W	R388	1-249-407-11	CARBON	150 5% 1/4W
R322	1-249-434-11	CARBON	27K 5% 1/4W	R391	1-249-434-11	CARBON	27K 5% 1/4W
R323	1-249-424-11	CARBON	3.9K 5% 1/4W	R392	1-249-424-11	CARBON	3.9K 5% 1/4W
R324	1-249-411-11	CARBON	330 5% 1/4W	R393	1-249-409-11	CARBON	220 5% 1/4W
R325	1-249-433-11	CARBON	22K 5% 1/4W	R394	1-249-411-11	CARBON	330 5% 1/4W
R326	1-249-423-11	CARBON	3.3K 5% 1/4W	R395	1-249-417-11	CARBON	1K 5% 1/4W
R327	1-249-422-11	CARBON	2.7K 5% 1/4W	R396	1-249-417-11	CARBON	1K 5% 1/4W
R328	1-247-714-11	CARBON	1.2K 5% 1/4W	R397	1-247-725-11	CARBON	10K 5% 1/4W
R329	1-249-421-11	CARBON	2.2K 5% 1/4W	R398	1-249-417-11	CARBON	1K 5% 1/4W
R330	1-247-713-11	CARBON	1K 5% 1/4W	R802	1-249-423-11	CARBON	3.3K 5% 1/4W
R331	1-249-405-11	CARBON	100 5% 1/4W	R803	1-249-423-11	CARBON	3.3K 5% 1/4W
R332	1-249-412-11	CARBON	390 5% 1/4W	R804	1-249-462-11	CARBON	22K 5% 1/4W
R333	1-249-433-11	CARBON	22K 5% 1/4W	R805	1-249-433-11	CARBON	22K 5% 1/4W
R334	1-249-416-11	CARBON	820 5% 1/4W	R806	1-249-429-11	CARBON	10K 5% 1/4W
R335	1-247-713-11	CARBON	1K 5% 1/4W	R807	1-249-433-11	CARBON	22K 5% 1/4W
R336	1-247-726-11	CARBON	33K 5% 1/4W	R808	1-249-433-11	CARBON	22K 5% 1/4W

A

M1

M2

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R809	1-249-433-11	CARBON	22K 5% 1/4W	RV303	1-238-016-11	RES, ADJ, CARBON 10K	
R810	1-249-433-11	CARBON	22K 5% 1/4W	RV304	1-238-016-11	RES, ADJ, CARBON 10K	
R811	1-249-429-11	CARBON	10K 5% 1/4W	RV305	1-238-011-11	RES, ADJ, CARBON 470	
R812	1-249-429-11	CARBON	10K 5% 1/4W	RV306	1-238-011-11	RES, ADJ, CARBON 470	
R813	1-249-462-11	CARBON	22K 5% 1/4W	RV307	1-238-013-11	RES, ADJ, CARBON 2.2K	
R814	1-249-433-11	CARBON	22K 5% 1/4W	TRANSFORMER			
R815	1-249-433-11	CARBON	22K 5% 1/4W	T101	1-404-538-11	COIL	
R816	1-249-433-11	CARBON	22K 5% 1/4W	T301	1-425-786-00	TRANSFORMER, BANDPASS(BPT)	
R817	1-249-425-11	CARBON	4.7K 5% 1/4W	CRYSTAL			
R818	1-249-441-11	CARBON	100K 5% 1/4W	X101	1-567-192-11	OSCILLATOR, CERAMIC	
R819	1-249-429-11	CARBON	10K 5% 1/4W	X301	1-527-722-00	OSCILLATOR, CRYSTAL	
R820	1-249-441-11	CARBON	100K 5% 1/4W	*****			
R821	1-249-433-11	CARBON	22K 5% 1/4W	*1-624-444-11	M1 BOARD	*****	
R822	1-249-465-11	CARBON	47K 5% 1/4W	JACK			
R825	1-247-713-11	CARBON	1K 5% 1/4W	J1301	1-563-501-11	JACK BLOCK, PIN (L TYPE) 3P	
R837	1-249-417-11	CARBON	1K 5% 1/4W	CONNECTOR			
R838	1-249-437-11	CARBON	47K 5% 1/4W	M1	*1-566-064-11	PIN, CONNECTOR 12P	
R839	1-249-436-11	CARBON	39K 5% 1/4W	M2	*1-566-057-11	PIN, CONNECTOR 5P	
R840	1-249-413-11	CARBON	470 5% 1/4W	SWITCH			
R841	1-249-441-11	CARBON	100K 5% 1/4W	S1308	1-554-804-11	SWITCH, PUSH (1 KEY)	
R842	1-249-437-11	CARBON	47K 5% 1/4W	S1309	1-554-804-11	SWITCH, PUSH (1 KEY)	
R843	1-249-436-11	CARBON	39K 5% 1/4W	S1310	1-554-804-11	SWITCH, PUSH (1 KEY)	
R844	1-249-441-11	CARBON	100K 5% 1/4W	S1311	1-554-804-11	SWITCH, PUSH (1 KEY)	
R845	1-247-713-11	CARBON	1K 5% 1/4W	S1312	1-554-804-11	SWITCH, PUSH (1 KEY)	
R846	1-249-385-11	CARBON	2.2 5% 1/4W F	S1313	1-554-804-11	SWITCH, PUSH (1 KEY)	
R847	1-249-385-11	CARBON	2.2 5% 1/4W F	S1314	1-554-804-11	SWITCH, PUSH (1 KEY)	
R848	1-247-713-11	CARBON	1K 5% 1/4W	S1315	1-554-804-11	SWITCH, PUSH (1 KEY)	
R850	1-249-414-11	CARBON	560 5% 1/4W	S1316	1-553-667-00	SWITCH, PUSH	
R851	1-249-414-11	CARBON	560 5% 1/4W	S1317	1-553-667-00	SWITCH, PUSH	
R852	1-249-417-11	CARBON	1K 5% 1/4W	S1318	1-553-667-00	SWITCH, PUSH	
R854	1-249-469-11	CARBON	100K 5% 1/4W	*****			
R855	1-249-441-11	CARBON	100K 5% 1/4W	*1-624-445-11	M2 BOARD	*****	
R1402	1-249-404-00	CARBON	82 5% 1/4W	*4-374-906-01	HOLDER (TV/V), LED		
R1403	1-249-420-11	CARBON	1.8K 5% 1/4W	CAPACITOR			
R1404	1-249-420-11	CARBON	1.8K 5% 1/4W	C1301	1-124-584-00	ELECT 100MF 20% 10V	
R1405	1-247-883-00	CARBON	150K 5% 1/4W	DIODE			
R1406	1-215-394-00	CARBON	75 5% 1/4W	D1301	8-719-812-41	DIODE TLR124	
R1407	1-249-434-11	CARBON	27K 5% 1/4W	D1302	8-719-812-41	DIODE TLR124	
R1408	1-249-429-11	CARBON	10K 5% 1/4W	D1303	8-719-812-41	DIODE TLR124	
R1409	1-249-415-11	CARBON	680 5% 1/4W	CONNECTOR			
R1410	1-249-414-11	CARBON	560 5% 1/4W	M3	*1-566-047-11	PIN, CONNECTOR 8P	
R1411	1-249-415-11	CARBON	680 5% 1/4W	M4	*1-566-045-11	PIN, CONNECTOR 6P	
R1412	1-249-429-11	CARBON	10K 5% 1/4W	M5	*1-566-042-11	PIN, CONNECTOR 3P	
R1413	1-249-419-11	CARBON	1.5K 5% 1/4W	VARIABLE RESISTOR			
R1414	1-249-434-11	CARBON	27K 5% 1/4W	RV101	1-238-009-11	RES, ADJ, CARBON 220	
R1415	1-249-441-11	CARBON	100K 5% 1/4W	RV201	1-238-015-11	RES, ADJ, CARBON 4.7K	
R1416	1-249-441-11	CARBON	100K 5% 1/4W	RV301	1-238-012-11	RES, ADJ, CARBON 1K	
R1419	1-249-441-11	CARBON	100K 5% 1/4W	RV302	1-238-011-11	RES, ADJ, CARBON 470	
R1420	1-249-441-11	CARBON	100K 5% 1/4W				
R1422	1-249-429-11	CARBON	10K 5% 1/4W				
R1423	1-249-414-11	CARBON	560 5% 1/4W				
R1424	1-249-441-11	CARBON	100K 5% 1/4W				
R1425	1-249-429-11	CARBON	10K 5% 1/4W				
R1427	1-249-421-11	CARBON	2.2K 5% 1/4W				
R1428	1-249-429-11	CARBON	10K 5% 1/4W				
R1431	1-249-417-11	CARBON	1K 5% 1/4W				
R1433	1-249-417-11	CARBON	1K 5% 1/4W				
R1435	1-249-417-11	CARBON	1K 5% 1/4W				

M2


M3

G

Les composants identifiés par  
une trame et une marque  $\Delta$   
sont critiques pour la sécurité.  
Ne les remplacer que par une  
pièce portant le numéro spécifié.


The components identified by  
shading and mark  $\Delta$  are critical  
for safety.  
Replace only with part number  
specified.

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
<u>RESISTOR</u>				<u>DIODE</u>			
R1301	1-249-405-11	CARBON	100 5% 1/4W	D651	8-719-109-97	DIODE RD6.8ES-B2	
R1302	1-249-405-11	CARBON	100 5% 1/4W	D654	8-719-924-06	DIODE ERC24-06S	
<u>SWITCH</u>				D655	8-719-924-06	DIODE ERC24-06S	
S1301A	1-554-804-12	SWITCH, PUSH (1 KEY) (POWER)		D657	8-719-100-80	DIODE RD20ES-B2	
S1302	1-554-804-11	SWITCH, PUSH (1 KEY)		D658	8-719-911-19	DIODE 1SS119	
S1303	1-554-804-11	SWITCH, PUSH (1 KEY)		D681	8-719-301-64	DIODE RU4DS	
S1304	1-554-804-11	SWITCH, PUSH (1 KEY)		D683	8-719-933-13	DIODE ERC35-02	
S1305	1-554-804-11	SWITCH, PUSH (1 KEY)		D685	8-719-300-76	DIODE RH1A	
S1306	1-554-804-11	SWITCH, PUSH (1 KEY)		D686	8-719-933-13	DIODE ERC35-02	
S1307	1-554-804-11	SWITCH, PUSH (1 KEY)		D687	8-719-110-48	DIODE RD18ES-B1	
*****				<u>CONNECTOR</u>			
	*1-624-446-11	M3 BOARD	*****	G1	*1-508-767-00	5P PLUG	
<u>IC</u>				G2	*1-566-054-11	PIN, CONNECTOR 2P	
IC1301	8-749-900-36	IC BX1393		G3	*1-508-766-00	4P PLUG (M)	
<u>CONNECTOR</u>				<u>IC</u>			
M6	*1-566-042-11	PIN, CONNECTOR 3P		IC651	8-759-100-75	IC UPC1394C	
*****				IC682A	8-719-927-74	DIODE PCB17-C	
	*A-1316-076-A	G BOARD, COMPLETE	*****	<u>MODULE</u>			
<u>CAPACITOR</u>				IC681A	1-235-971-12	POWER MODULE (DM-36)	
C651	1-123-942-51	ELECT	47MF 20% 200V	<u>COIL</u>			
C652	1-136-064-00	FILM	0.002MF 3% 2KV	L651	1-407-365-00	COIL, CHOKE	
C653	1-129-765-00	FILM	0.047MF 10% 200V	L652	1-407-365-00	COIL, CHOKE	
C654	1-124-902-00	ELECT	0.47MF 20% 50V	L681	1-425-612-00	COIL, ARE-CORE	
C655	1-162-318-11	CERAMIC	0.001MF 10% 500V	L689	1-425-612-00	COIL, ARE-CORE	
C656	1-124-472-11	ELECT	470MF 20% 10V	L690	1-425-612-00	COIL, ARE-CORE	
C657	1-124-963-11	ELECT	33MF 20% 16V	<u>TRANSISTOR</u>			
C658	1-130-475-00	MYLAR	0.0022MF 5% 50V	Q651	8-729-301-56	TRANSISTOR 2SC3387-01AB	
C659	1-102-074-00	CERAMIC	0.001MF 10% 50V		4-302-428-00	HEAD, WASHER, TAPPING SCREW; Q651	
C660	1-123-875-11	ELECT	10MF 20% 50V		*4-341-751-01	PAWL; Q651	
C661	1-161-953-00	CERAMIC	0.0047MF 20% 400V		4-363-414-00	SPACER, MICA; Q651	
C664	1-162-318-11	CERAMIC	0.001MF 10% 500V	Q652	8-729-168-82	TRANSISTOR 2SC2688	
C665	1-102-824-00	CERAMIC	470PF 5% 50V		4-382-216-01	SPACER, MICA; Q652	
C681	1-162-116-00	CERAMIC	680PF 10% 2KV	Q653	8-729-168-82	TRANSISTOR 2SC2688	
C682	1-102-030-00	CERAMIC	330PF 10% 500V	Q655	8-729-200-17	TRANSISTOR 2SA1091	
C683	1-102-030-00	CERAMIC	330PF 10% 500V	<u>RESISTOR</u>			
C685	1-125-512-11	ELECT(BLOCK)	1000MF 20% 160V	R650	1-216-486-00	METAL OXIDE	8.2K 5% 3W F
C686	1-124-618-11	ELECT	2200MF 20% 35V	R651	1-216-483-11	METAL OXIDE	2.7K 5% 3W F
C687	1-124-900-11	ELECT	470MF 20% 35V	R652	1-247-694-91	CARBON	33 5% 1/4W F
C688	1-124-557-11	ELECT	1000MF 20% 25V	R653	1-216-486-00	METAL OXIDE	8.2K 5% 3W F
C689	1-102-030-00	CERAMIC	330PF 10% 500V	R654	1-249-496-11	CARBON	100K 5% 1/2W
C690	1-124-499-11	ELECT	1MF 20% 50V	R655	1-247-706-11	CARBON	330 5% 1/4W
C691	1-102-074-00	CERAMIC	0.001MF 10% 50V	R656	1-246-529-00	CARBON	220K 5% 1/4W
C692	1-162-134-11	CERAMIC	470PF 10% 2KV	R657	1-249-398-11	CARBON	27 5% 1/4W
C693	1-161-973-00	CERAMIC	220PF 10% 400V	R658	1-249-424-11	CARBON	3.9K 5% 1/4W
C694	1-123-875-11	ELECT	10MF 20% 50V	R659	1-217-189-21	WIREWOUND	0.12 10% 2W F
C697	1-124-499-11	ELECT	1MF 20% 50V	R660	1-215-459-00	METAL	39K 1% 1/6W
				R661	1-249-434-11	CARBON	27K 5% 1/4W
				R662	1-249-428-11	CARBON	8.2K 5% 1/4W
				R663	1-246-529-00	CARBON	220K 5% 1/4W
				R664	1-246-529-00	CARBON	220K 5% 1/4W
				R665	1-249-424-11	CARBON	3.9K 5% 1/4W


Les composants identifiés par une trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

**G C**

-51-

The components identified by shading and mark  are critical for safety.  
Replace only with part number specified.

—52—

Les composants identifiés par une trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.


D


Ref. No.	Part No.	Description				Remark
Q1610	8-729-178-54	TRANSISTOR 2SC2785				
Q1611	8-729-117-54	TRANSISTOR 2SA1175				
Q1612	8-729-178-54	TRANSISTOR 2SC2785				
Q1670	8-729-178-54	TRANSISTOR 2SC2785				
Q1671	8-729-178-54	TRANSISTOR 2SC2785				
Q1714	8-729-117-54	TRANSISTOR 2SA1175				
<b>RESISTOR</b>						
R1502	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1503A	1-247-722-91	CARBON	5.6K	5%	1/4W F	
R1504A	1-215-918-51	METAL OXIDE	1.5K	5%	3W F	
R1505	1-216-346-00	METAL OXIDE	0.56	5%	1W F	
R1506	1-247-696-11	CARBON	47	5%	1/4W	
R1507	1-215-868-00	METAL OXIDE	680	5%	1W F	
R1508A	1-216-425-91	METAL OXIDE	56	5%	1W F	
R1509A	1-216-450-91	METAL OXIDE	82	5%	2W F	
R1510	1-216-449-11	METAL OXIDE	56	5%	2W F	
R1511A	1-216-421-91	METAL OXIDE	12	5%	1W F	
R1513	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1515	1-249-389-11	CARBON	4.7	5%	1/4W F	
R1516	1-249-435-11	CARBON	33K	5%	1/4W	
R1517	1-249-465-11	CARBON	47K	5%	1/4W	
R1518	1-249-465-11	CARBON	47K	5%	1/4W	
R1519	1-215-373-31	METAL	10	1%	1/6W	
R1521	1-215-493-00	CARBON	1M	5%	1/4W	
R1524	1-215-493-00	CARBON	1M	5%	1/4W	
R1525	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1527	1-216-486-00	METAL OXIDE	8.2K	5%	3W F	
R1532	1-247-753-11	CARBON	1.2K	5%	1/2W	
R1533	1-247-753-11	CARBON	1.2K	5%	1/2W	
R1534	1-247-885-00	CARBON	180K	5%	1/4W	
*R1535	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1536	1-249-405-11	CARBON	100	5%	1/4W	
*R1538	1-215-407-00	METAL	270	1%	1/6W	
R1539	1-215-405-00	METAL	220	1%	1/6W	
R1540	1-216-429-00	METAL OXIDE	270	5%	1W F	
R1541	1-247-722-11	CARBON	5.6K	5%	1/4W	
R1542	1-216-433-00	METAL OXIDE	1.2K	5%	1W F	
R1543	1-249-429-11	CARBON	10K	5%	1/4W	
R1544	1-249-435-11	CARBON	33K	5%	1/4W	
R1545	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1546	1-216-351-00	METAL OXIDE	1.5	5%	1W F	
R1547	1-249-429-11	CARBON	10K	5%	1/4W	
R1548	1-247-713-11	CARBON	1K	5%	1/4W	
R1549	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1550	1-249-435-11	CARBON	33K	5%	1/4W	
R1551	1-247-713-11	CARBON	1K	5%	1/4W	
R1552	1-249-409-11	CARBON	220	5%	1/4W	
R1557	1-247-713-11	CARBON	1K	5%	1/4W	
R1558	1-247-887-00	CARBON	220K	5%	1/4W	
R1559	1-215-493-00	CARBON	1M	5%	1/4W	
R1561	1-249-433-11	CARBON	22K	5%	1/4W	
R1562	1-249-429-11	CARBON	10K	5%	1/4W	
R1563	1-247-700-11	CARBON	100	5%	1/4W	
R1564	1-249-441-11	CARBON	100K	5%	1/4W	
R1565	1-249-417-11	CARBON	1K	5%	1/4W	
R1566	1-249-417-11	CARBON	1K	5%	1/4W	
R1567	1-249-409-11	CARBON	220	5%	1/4W	
R1568	1-249-441-11	CARBON	100K	5%	1/4W	
R1569	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1570	1-249-431-11	CARBON	15K	5%	1/4W	
R1571	1-247-719-11	CARBON	3.3K	5%	1/4W	
R1572	1-247-717-11	CARBON	2.2K	5%	1/4W	


Ref.No.	Part No.	Description	Remark
D1541	8-719-109-90	DIODE RD5.6ES-B3	
D1542	8-719-911-19	DIODE 1SS119	
D1543	8-719-911-19	DIODE 1SS119	
D1544	8-719-911-55	DIODE U05G	
D1545	8-719-911-19	DIODE 1SS119	
D1552	8-719-911-19	DIODE 1SS119	
D1553	8-719-911-19	DIODE 1SS119	
D1560	8-719-110-66	DIODE RD27ES-B1	
D1561	8-719-911-19	DIODE 1SS119	
D1562	8-719-911-19	DIODE 1SS119	
D1563	8-719-911-19	DIODE 1SS119	
D1564	8-719-911-19	DIODE 1SS119	
D1662	8-719-901-19	DIODE V11N	
D1663	8-719-300-65	DIODE ES1F	
D1691	8-719-300-38	DIODE GU-3A	
D1692	8-719-921-53	DIODE RGP15G	
D1693	8-719-911-19	DIODE 1SS119	
D1694	8-719-300-76	DIODE RH1A	
D1710	8-719-911-19	DIODE 1SS119	
D1711	8-719-911-19	DIODE 1SS119	
D1712	8-719-109-90	DIODE RD5.6ES-B3	
<u>IC</u>			
IC1540	8-759-402-35	IC AN5521	
IC1560	8-759-106-61	IC UPC4570HA	
IC1691	8-759-178-12	IC UPC78L12	
IC1710	8-759-100-60	IC UPC1377C	
<u>COIL</u>			
L1502	1-407-364-00	COIL, SPOOK CHOKE 3.3UH	
L1503	1-407-365-00	COIL, CHOKE	
	*4-341-751-01	PAWL; L1503	
L1504	1-407-365-00	COIL, CHOKE	
L1505	1-459-224-13	HLC	
	*4-341-751-01	PAWL; L1505	
L1506	1-408-239-00	INDUCTOR 4.7MMH	
L1507	1-459-075-00	COIL, DYNAMIC CONVERSION CHOKE	
L1508	1-459-104-00	COIL, DUST CORE	
L1509	1-459-313-00	COIL WITH CORE (HWC)	
L1691	1-408-225-00	INDUCTOR 3.3UH	
L1692	1-408-225-00	INDUCTOR 3.3UH	
L1693	1-408-225-00	INDUCTOR 3.3UH	
L1694	1-459-485-00	COIL, CHOKE	
<u>NEON LAMP</u>			
NL1690	1-519-237-11	LAMP, NEON	
<u>MODULE</u>			
PM1700	1-235-963-11	PROTECTOR MODULE (PM-9)	
<u>TRANSISTOR</u>			
Q1501	8-729-168-82	TRANSISTOR 2SC2688	
Q1502	8-729-304-50	TRANSISTOR 2SD1941-06	
	*4-341-752-01	EYELET; Q1502	
	*4-378-214-01	HOLDER, TR; Q1502	
Q1540	8-729-178-54	TRANSISTOR 2SC2785	
Q1560	8-729-201-78	TRANSISTOR 2SD1406	
Q1561	8-729-178-54	TRANSISTOR 2SC2785	
Q1608	8-729-178-54	TRANSISTOR 2SC2785	
Q1609	8-729-178-54	TRANSISTOR 2SC2785	

# KV-27SXR10 RM-755

**D** **U2**

- The components identified by  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- \* : Selected to yield optimum performance.

Les composants identifiés par une trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R1574	1-247-702-11	CARBON	150 5% 1/4W	R1733	1-249-467-11	CARBON	68K 5% 1/4W
R1576	1-249-431-11	CARBON	15K 5% 1/4W	R1734	1-216-484-00	METAL OXIDE	3.9K 5% 3W F
R1577	1-249-437-11	CARBON	47K 5% 1/4W	R1735	1-249-431-11	CARBON	15K 5% 1/4W
R1578	1-249-436-11	CARBON	39K 5% 1/4W	R1736	1-249-438-11	CARBON	56K 5% 1/4W
R1579	1-247-700-11	CARBON	100 5% 1/4W F	R1737	1-216-484-00	METAL OXIDE	3.9K 5% 3W F
R1584	1-249-435-11	CARBON	33K 5% 1/4W	R1738	1-249-424-11	CARBON	3.9K 5% 1/4W
R1586	1-249-427-11	CARBON	6.8K 5% 1/4W	R1739	1-249-418-11	CARBON	1.2K 5% 1/4W
R1587	1-249-438-11	CARBON	56K 5% 1/4W	R1742	1-215-493-00	CARBON	1M 5% 1/4W
R1588	1-249-435-11	CARBON	33K 5% 1/4W	R1744	1-249-409-11	CARBON	220 5% 1/4W
R1589	1-249-424-11	CARBON	3.9K 5% 1/4W	R1746	1-247-717-11	CARBON	2.2K 5% 1/4W
R1590	1-249-424-11	CARBON	3.9K 5% 1/4W	R1747	1-249-417-11	CARBON	1K 5% 1/4W
R1591	1-249-441-11	CARBON	100K 5% 1/4W	R1755	1-247-706-11	CARBON	330 5% 1/4W
R1592	1-249-441-11	CARBON	100K 5% 1/4W	R1756	1-249-436-11	CARBON	39K 5% 1/4W
R1594	1-249-429-11	CARBON	10K 5% 1/4W	R1757	1-249-437-11	CARBON	47K 5% 1/4W
R1595	1-249-429-11	CARBON	10K 5% 1/4W	R1760	1-249-418-11	CARBON	1.2K 5% 1/4W
R1596	1-249-429-11	CARBON	10K 5% 1/4W	VARIABLE RESISTOR			
R1598	1-249-429-11	CARBON	10K 5% 1/4W	RV1540	1-230-624-51	RES, ADJ, CARBON	220
R1599	1-249-429-11	CARBON	10K 5% 1/4W	RV1560	1-228-996-00	RES, ADJ, CARBON	47K
R1602	1-249-426-11	CARBON	5.6K 5% 1/4W	RV1561	1-228-990-00	RES, ADJ, CARBON	1K
R1636	1-249-437-11	CARBON	47K 5% 1/4W	RV1562	1-228-996-00	RES, ADJ, CARBON	47K
R1637	1-249-437-11	CARBON	47K 5% 1/4W	RV1563	1-228-997-00	RES, ADJ, CARBON	100K
R1638	1-249-413-11	CARBON	470 5% 1/4W	RV1564	1-228-997-00	RES, ADJ, CARBON	100K
R1639	1-249-441-11	CARBON	100K 5% 1/4W	RV1710	1-228-993-00	RES, ADJ, METAL GLAZE	4.7K
R1664	1-216-434-11	METAL OXIDE	1.8K 5% 1W F	RV1711	1-228-994-00	RES, ADJ, CARBON	10K
R1670	1-247-701-11	CARBON	120 5% 1/4W	SWITCH			
R1671	1-215-445-00	METAL	10K 1% 1/6W	S1540	1-554-186-00	SWITCH, LEVER	
R1672	1-215-445-00	METAL	10K 1% 1/6W	SPARK GAP			
R1674	1-249-423-11	CARBON	3.3K 5% 1/4W	SG1501	1-519-422-11	GAP, SPARK	
R1675	1-249-438-11	CARBON	56K 5% 1/4W	TRANSFORMER			
R1676	1-247-726-11	CARBON	33K 5% 1/4W	T1501	1-437-079-00	TRANSFORMER, HORIZONTAL DRIVE	
R1677	1-249-423-11	CARBON	3.3K 5% 1/4W	T1502	1-421-794-11	TRANSFORMER, FERRITE (PMT)	
R1678	1-249-429-11	CARBON	10K 5% 1/4W	*4-341-751-01	PAWL; T1502		
R1679	1-215-489-00	CARBON	680K 5% 1/4W	*****			
R1691	1-249-448-91	CARBON	1.2 5% 1/4W F	*1-624-448-11	U2 BOARD		
R1692	1-249-448-11	CARBON	1.2 5% 1/4W F	*****			
R1693	1-249-462-11	CARBON	22K 5% 1/4W	CAPACITOR			
R1694	1-249-462-11	CARBON	22K 5% 1/4W	C471	1-123-875-11	ELECT	10MF 20% 50V
R1695	1-215-906-11	METAL OXIDE	15 5% 3W F	C472	1-123-356-00	ELECT	10MF 20% 16V
R1700	1-202-830-00	SOLID	10K 10% 1/2W	TRANSISTOR			
R1702	1-249-413-11	CARBON	470 5% 1/4W F	Q471	8-729-117-54	TRANSISTOR 2SA1175	
R1703	1-249-411-11	CARBON	330 5% 1/4W	Q472	8-729-117-54	TRANSISTOR 2SA1175	
*R1704	1-247-891-00	CARBON	330K 5% 1/4W	Q473	8-729-117-54	TRANSISTOR 2SA1175	
R1705	1-249-419-11	CARBON	1.5K 5% 1/4W F	Q474	8-729-178-54	TRANSISTOR 2SC2785	
✱R1707	1-249-411-11	METAL	1/6W	RESISTOR			
R1709	1-249-433-11	CARBON	22K 5% 1/4W	R471	1-247-887-00	CARBON	220K 5% 1/4W
R1711	1-249-462-11	CARBON	22K 5% 1/4W	R472	1-247-887-00	CARBON	220K 5% 1/4W
R1712	1-249-468-11	CARBON	82K 5% 1/4W	R473	1-249-433-11	CARBON	22K 5% 1/4W
R1713	1-215-920-11	METAL OXIDE	3.3K 5% 3W F	R474	1-249-433-11	CARBON	22K 5% 1/4W
R1714	1-249-433-11	CARBON	22K 5% 1/4W	R476	1-249-437-11	CARBON	47K 5% 1/4W
R1716	1-215-920-11	METAL OXIDE	3.3K 5% 3W F	R477	1-249-437-11	CARBON	47K 5% 1/4W
R1717	1-249-429-11	CARBON	10K 5% 1/4W				
R1718	1-249-422-11	CARBON	2.7K 5% 1/4W				
R1719	1-249-440-11	CARBON	82K 5% 1/4W				
R1720	1-247-700-11	CARBON	100 5% 1/4W				
R1721	1-249-417-11	CARBON	1K 5% 1/4W				
R1722	1-215-458-00	METAL	36K 1% 1/6W				
R1723	1-247-719-11	CARBON	3.3K 5% 1/4W				
R1724	1-249-459-11	CARBON	12K 5% 1/4W				
R1725	1-249-435-11	CARBON	33K 5% 1/4W				
R1726	1-247-700-11	CARBON	100 5% 1/4W				
R1727	1-247-706-11	CARBON	330 5% 1/4W				
R1728	1-214-766-00	METAL	36K 1% 1/4W				
R1729	1-247-725-11	CARBON	10K 5% 1/4W				
R1730	1-247-715-11	CARBON	1.5K 5% 1/4W				
R1732	1-215-463-00	METAL	56K 1% 1/6W				



U2

U1

Ref.No.	Part No.	Description	Remark
R478	1-249-433-11	CARBON 22K 5% 1/4W	
R479	1-249-429-11	CARBON 10K 5% 1/4W	
R481	1-249-429-11	CARBON 10K 5% 1/4W	

CONNECTOR

U7 \*1-566-043-11 PIN, CONNECTOR 4P

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\*A-1394-130-A U1 BOARD, COMPLETE  
\*\*\*\*\*CAPACITOR

C411	1-123-875-11	ELECT 10MF 20% 50V	
C412	1-124-255-00	ELECT 1MF 20% 50V	
C413	1-124-255-00	ELECT 1MF 20% 50V	
C414	1-124-499-11	ELECT 1MF 20% 50V	
C415	1-124-499-11	ELECT 1MF 20% 50V	
C416	1-102-114-00	CERAMIC 470PF 10% 50V	
C421	1-123-875-11	ELECT 10MF 20% 50V	
C422	1-124-499-11	ELECT 1MF 20% 50V	
C423	1-124-499-11	ELECT 1MF 20% 50V	
C431	1-123-875-11	ELECT 10MF 20% 50V	
C432	1-124-255-00	ELECT 1MF 20% 50V	
C433	1-124-255-00	ELECT 1MF 20% 50V	
C441	1-126-103-11	ELECT 470MF 20% 16V	
C442	1-124-245-00	ELECT 4.7MF 20% 16V	
C443	1-124-245-00	ELECT 4.7MF 20% 16V	
C453	1-106-367-00	MYLAR 0.01MF 10% 100V	
C454	1-124-462-00	ELECT 10MF 20% 16V	
C461	1-106-367-00	MYLAR 0.01MF 10% 100V	
C463	1-124-963-11	ELECT 33MF 20% 16V	
C465	1-106-367-00	MYLAR 0.01MF 10% 100V	
C466	1-106-367-00	MYLAR 0.01MF 10% 100V	
C467	1-126-101-11	ELECT 100MF 20% 16V	
C476	1-102-945-00	CERAMIC 8PF 1PF 50V	
C477	1-123-875-11	ELECT 10MF 20% 50V	
C491	1-124-908-11	ELECT 22MF 20% 25V	
C492	1-124-908-11	ELECT 22MF 20% 25V	

DIODE

D411	8-719-110-16	DIODE RD10ES-B1	
D412	8-719-109-89	DIODE RD5.6ES-B2	
D413	8-719-109-89	DIODE RD5.6ES-B2	
D414	8-719-109-89	DIODE RD5.6ES-B2	
D415	8-719-109-89	DIODE RD5.6ES-B2	
D416	8-719-110-16	DIODE RD10ES-B1	
D417	8-719-110-16	DIODE RD10ES-B1	
D418	8-719-110-16	DIODE RD10ES-B1	
D419	8-719-110-16	DIODE RD10ES-B1	
D421	8-719-110-16	DIODE RD10ES-B1	
D431	8-719-110-16	DIODE RD10ES-B1	

IC

IC401 8-759-206-12 IC TA7717AP

JACK

J411	1-563-302-11	JACK BLOCK, PIN 2P	
J412	1-563-305-11	JACK BLOCK, PIN 6P	
J413	1-565-166-11	PIN JACK BLOCK, (S) TERMINAL 3P	

Ref.No.	Part No.	Description	Remark
<u>TRANSISTOR</u>			
Q451	8-729-178-54	TRANSISTOR 2SC2785	
Q455	8-729-178-54	TRANSISTOR 2SC2785	
Q461	8-729-178-54	TRANSISTOR 2SC2785	
Q462	8-729-117-54	TRANSISTOR 2SA1175	
Q463	8-729-178-54	TRANSISTOR 2SC2785	

RESISTOR

R411	1-247-104-00	CARBON 75 5% 1/4W	
R412	1-247-704-11	CARBON 220 5% 1/4W	
R413	1-246-507-00	CARBON 27K 5% 1/4W	
R414	1-246-537-00	CARBON 470K 5% 1/4W	
R415	1-246-507-00	CARBON 27K 5% 1/4W	
R416	1-246-537-00	CARBON 470K 5% 1/4W	
R417	1-249-437-11	CARBON 47K 5% 1/4W	
R418	1-249-420-11	CARBON 1.8K 5% 1/4W	
R419	1-249-419-11	CARBON 1.5K 5% 1/4W	
R420	1-249-422-11	CARBON 2.7K 5% 1/4W	
R421	1-247-104-00	CARBON 75 5% 1/4W	
R422	1-249-409-11	CARBON 220 5% 1/4W	
R423	1-246-507-00	CARBON 27K 5% 1/4W	
R424	1-246-537-00	CARBON 470K 5% 1/4W	
R425	1-246-507-00	CARBON 27K 5% 1/4W	
R426	1-246-537-00	CARBON 470K 5% 1/4W	
R427	1-249-417-11	CARBON 1K 5% 1/4W	
R428	1-247-725-11	CARBON 10K 5% 1/4W	
R429	1-247-725-11	CARBON 10K 5% 1/4W	
R430	1-247-713-11	CARBON 1K 5% 1/4W	
R431	1-247-104-00	CARBON 75 5% 1/4W	
R432	1-247-704-11	CARBON 220 5% 1/4W	
R433	1-246-507-00	CARBON 27K 5% 1/4W	
R434	1-246-537-00	CARBON 470K 5% 1/4W	
R435	1-246-507-00	CARBON 27K 5% 1/4W	
R436	1-246-537-00	CARBON 470K 5% 1/4W	
R437	1-249-426-11	CARBON 5.6K 5% 1/4W	
R438	1-249-426-11	CARBON 5.6K 5% 1/4W	
R439	1-249-417-11	CARBON 1K 5% 1/4W	
R440	1-249-417-11	CARBON 1K 5% 1/4W	
R441	1-247-104-00	CARBON 75 5% 1/4W	
R442	1-246-537-00	CARBON 470K 5% 1/4W	
R443	1-246-537-00	CARBON 470K 5% 1/4W	
R444	1-247-713-11	CARBON 1K 5% 1/4W	
R445	1-246-537-00	CARBON 470K 5% 1/4W	
R446	1-247-713-11	CARBON 1K 5% 1/4W	
R447	1-249-417-11	CARBON 1K 5% 1/4W	
R448	1-249-417-11	CARBON 1K 5% 1/4W	
R449	1-249-423-11	CARBON 3.3K 5% 1/4W	
R450	1-249-423-11	CARBON 3.3K 5% 1/4W	
R451	1-249-416-11	CARBON 820 5% 1/4W	
R455	1-249-416-11	CARBON 820 5% 1/4W	
R460	1-249-425-11	CARBON 4.7K 5% 1/4W	
R461	1-249-422-11	CARBON 2.7K 5% 1/4W	
R462	1-249-433-11	CARBON 22K 5% 1/4W	
R463	1-247-696-11	CARBON 47 5% 1/4W	
R465	1-249-405-11	CARBON 100 5% 1/4W	
R466	1-249-417-11	CARBON 1K 5% 1/4W	
R467	1-249-417-11	CARBON 1K 5% 1/4W	
R468	1-249-417-11	CARBON 1K 5% 1/4W	
R469	1-249-433-11	CARBON 22K 5% 1/4W	
R491	1-246-537-00	CARBON 470K 5% 1/4W	
R492	1-249-417-11	CARBON 1K 5% 1/4W	
R494	1-246-537-00	CARBON 470K 5% 1/4W	
R495	1-249-417-11	CARBON 1K 5% 1/4W	

Les composants identifiés par  
une trame et une marque  $\Delta$   
sont critiques pour la sécurité.  
Ne les remplacer que par une  
pièce portant le numéro spécifié.

The components identified by  
shading and mark  $\Delta$  are criti-  
cal for safety.  
Replace only with part number  
specified.

Ref.No.	Part No.	Description	Remark
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CONNECTOR

U1	*1-566-044-11	PIN, CONNECTOR 5P	
U2	*1-566-043-11	PIN, CONNECTOR 4P	
U3	*1-566-043-11	PIN, CONNECTOR 4P	
U4	*1-566-047-11	PIN, CONNECTOR 8P	
U5	*1-566-044-11	PIN, CONNECTOR 5P	
U6	*1-566-044-11	PIN, CONNECTOR 5P	

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MISCELLANEOUS

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$\Delta$ 1-230-940-21	RESISTOR ASSY, HIGH-VOLTAGE
$\Delta$ 1-417-125-16	SELECTOR, ANTENNA
$\Delta$ 1-426-350-21	COIL, DEMAGNETIZATION
$\Delta$ 1-451-275-11	DEFLECTION YOKE (SY-158)
1-452-032-00	MAGNET, DISK; 10MM $\phi$
1-452-094-00	MAGNET, ROTATABLE DISK; 15MM $\phi$
*1-558-745-11	CABLE, P-P
$\Delta$ 1-559-396-11	CORD, POWER

SP901	1-503-914-11	SPEAKER
SP902	1-503-914-11	SPEAKER
S903	1-529-062-11	BUZZER
S904	1-529-062-11	BUZZER
T1701	$\Delta$ 1-439-416-31	TRANSFORMER ASSY, FLYBACK
TU101	$\Delta$ 1-463-771-11	TUNER, ET (BTP-201A)
V901	$\Delta$ 8-737-753-05	PICTURE TUBE (A68JMT50X)

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ACCESSORIES AND PACKING MATERIALS

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Part No.	Description	Remark
A-1470-821-A	COMMANDER ASSY (RM-755)	
1-417-131-11	CONVERTER (CND ONLY)	
$\Delta$ 1-417-135-11	MIXER, U/V (USA ONLY)	
*4-388-386-01	CUSHION (UPPER) (ASSY)	
*4-388-387-01	CUSHION (LOWER) (ASSY)	
*4-388-388-01	INDIVIDUAL CARTON	
4-482-553-21	MANUAL, INSTRUCTION	
4-482-553-31	MANUAL, INSTRUCTION (CND ONLY)	